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TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1950

No. 32

THE GREAT ATLANTIC & PACIFIC TEA COMPANY,
PETITIONER,

vs.

SUPERMARKET EQUIPMENT CORPORATION, SUBSTITUTED FOR EVELYN B. BRADLEY AND JOE WEINGARTEN.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

PETITION FOR CERTIORARI FILED MARCH 16, 1950.

CERTIORARI GRANTED MAY 1, 1950.

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[fol. 1] [Caption omitted]

[fol. 2]

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE EASTERN DISTRICT OF MICHIGAN, SOUTHERN DIVISION

Civil Docket No. 5430

Equitable Relief Sought

United States Letters Patent No. 2,242,408

HERBERT N. BRADLEY and JOE WEINGARTEN, Plaintiffs,

vs.

THE GREAT ATLANTIC & PACIFIC TEA COMPANY, Defendant

COMPLAINT

Plaintiffs, for complaint against defendant, allege:

1. Plaintiff Herbert N. Bradley is a citizen of the United States and resident of the State of Michigan, residing at Route No. 1, Jerome, Michigan.

2. Plaintiff Joe Weingarten is a citizen of the United States and a resident of the State of Texas, residing at 808 Prairie Avenue, Houston, Texas.

3. Defendant is a corporation of the State of New Jersey, an inhabitant of Michigan within the Eastern District of Michigan, in which State and District defendant has a regular and established place of business at 5470 Hecla Street, Detroit, Michigan, and has committed acts of infringement herein complained of.

4. This suit is brought under the patent laws of the United States for infringement of United States Letters Patent No. 2,242,408.

[fol. 3] 5. On May 20th, 1941, United States Letters Patent No. 2,242,408, were duly and lawfully issued to Ellis D. Turnham for an invention in Merchandise Handler.

6. Plaintiff Joe Weingarten, by assignment, became and now is the owner of all right and title to said Letters Patent subject to an exclusive license granted July 22nd, 1944, to Plaintiff Herbert N. Bradley for the manufacture, use,

and/or sale of merchandise handlers, including the right to grant sub-licenses, and to file suits for infringement under said Letters Patent No. 2,242,408.

7. The invention disclosed and claimed in said Letters Patent is recognized of great practical utility, and devices embodying said invention have been made and used by defendant and other chain store operators throughout the United States in large numbers.

8. Defendant, within the jurisdiction of this Court and elsewhere within the United States, has within six years prior to the filing of this suit, infringed said Letters Patent by making or having made and using merchandise handlers in its stores embodying the invention of said Letters Patent without authority or license from the plaintiffs, or either of them, and defendant now is so infringing said Letters Patent and threatens to continue to so do.

9. Defendant has damaged plaintiffs and has derived unlawful gains and profits by such infringement and is continuing to damage plaintiffs in an undetermined amount, and is continuing to derive unlawful gains and profits from such infringement, whereby plaintiffs have been and are being irreparably damaged and are without adequate remedy except in Equity.

Wherefore plaintiffs Pray that this Court grant plaintiffs:

[fol. 4] a. A perpetual injunction enjoining and restraining defendant, its officers and agents, from infringing United States Letters Patent No. 2,242,408.

b. An accounting of the damages sustained by plaintiffs and the profits unlawfully realized by defendant by the infringement herein complained of, and an award to plaintiffs of said damages or profits as provided by statute.

c. The costs of this suit.

d. Any other relief that this case may require.

Herbert N. Bradley and Joe Weingarten, Plaintiffs, Beaman & Langford, Their Attorneys. Beaman & Langford, Townsend F. Beaman, 501 Reynolds Building, Jackson, Michigan, Attorneys for Plaintiffs.

December 13, 1945.

[fol. 5] IN UNITED STATES DISTRICT COURT

ANSWER

[Same Title]

1. Defendant admits that it is a corporation of the State of New Jersey with a place of business at 5470 Hecla Street, Detroit, Michigan, but defendant denies that it has committed any acts of infringement.

2. Defendant admits that this is a suit brought under the Patent Laws of the United States.

3. Defendant admits that United States Letters Patent No. 2,242,408 issued on May 20, 1941, but denies that said Letters Patent were duly and legally issued as alleged in paragraph 5 of the Complaint.

4. Defendant is without knowledge or information sufficient to form a belief as to any of the allegations contained in paragraph 6 of the Complaint, and, therefore, pleads the plaintiffs to make such proofs thereof as may be deemed necessary.

5. Defendant denies each and every allegation in paragraph 7 of the Complaint.

6. Defendant denies each and every allegation contained in paragraph 8 of the Complaint.

7. Defendant denies each and every allegation contained in paragraph 9 of the Complaint.

Defendant further answering the Complaint alleges

8. That Ellis D. Turnham was not the original or first inventor or discoverer of any material or substantial part of that which is alleged to be patented by Letters Patent No. 2,242,408 but that on the contrary prior to his supposed invention thereof for more than two years prior to his application for Letters Patent thereof the thing or things alleged to be patented by said patent and more particularly that which is defined in the claims thereof had been patented [fol. 6] or described in the following Letters Patent and in the applications therefor and the said patent is therefore invalid.

W. B. McCarty	May	30, 1922	15,368
O. P. Groves	Mar.	20, 1888	379,780
H. Knudsen	Feb.	23, 1897	577,688
A. R. Dickinson	Nov.	3, 1914	1,115,911

A. M. Weston	Feb.	8, 1916	1,170,790
E. L. Da Roza	Aug.	19, 1919	1,313,794
J. M. Turner	June	15, 1920	1,343,801
W. B. McCarty	July	27, 1920	1,348,024
H. C. Harvey	Aug.	24, 1920	1,350,996
C. Saunders	Nov.	2, 1920	1,357,521
E. P. Dandridge	June	7, 1921	1,380,886
H. S. Greenberg	July	12, 1921	1,384,191
C. H. Spink et al	Aug.	30, 1921	1,388,975
O. H. Doerfler	Apr.	3, 1923	1,450,434
R. A. Stevenson	May	20, 1924	1,494,390
F. J. Storch et al	May	20, 1924	1,494,640
H. Marois	Jan.	3, 1928	1,654,692
E. R. Walker	Dec.	9, 1930	1,784,403
J. T. Anderson	Jan.	13, 1931	1,788,759
F. Myers	Nov.	17, 1931	1,832,410
C. E. Rorrer et al	Aug.	23, 1932	1,873,852
L. M. Cockrill et al	Jan.	17, 1933	1,894,851
D. W. Brashear	Feb.	21, 1933	1,898,421
C. E. Rorrer et al	Jan.	15, 1935	1,987,797
E. A. Ekedahl et al	Aug.	31, 1937	2,091,355
L. F. Clerc	Oct.	26, 1937	2,096,959

9. Prior to the supposed invention by Ellis D. Turnham and for more than two years prior to his application for a patent therefor, the thing or things alleged to be patented by said patent and more particularly defined in the claim therefor had been known by the patentees, as set forth in paragraph 8 hereof, and had been publicly used by them [fol. 7] in the United States and that said patent is invalid in view thereof.

10. That in view of the state of the prior art on the date on which the application for said patent No. 2,242,408 was filed, or on the date of the supposed invention thereof, the claims of said patent cannot be given an interpretation which would bring within the scope thereof any of the equipment which defendant is or has been installing.

11. That said patent No. 2,242,408 is invalid and void because no invention was involved in the subject matter covered by the claims thereof in view of the state and knowledge of the art existing at the time that the application for said patent was filed or at the time when the alleged invention or inventions purported to be covered thereby were supposed to have been made.

12. Upon information and belief the patent involved in this suit is invalid because prior to the supposed invention by Ellis D. Turnham and for more than two years prior to the application for a patent therefor the thing or things alleged to be patented by said patent and more particularly that which is defined by the claims thereof was known to others and used publicly by others not now known to defendant but of whom defendant will give due notice prior to the trial of this action.

Wherefore, defendant prays to be dismissed with costs to the defendant.

E. J. Balluff, Attorney for Defendant, 2755 Penobscot Building, Detroit 26, Michigan.

Munn, Liddy & Glaccum, Solicitors for Defendant, 24 West 40th Street, New York 18, N. Y.

[fol. 8] IN UNITED STATES DISTRICT COURT

Transcript of Testimony and Exhibits

[Same Title]

Proceedings had in the above entitled cause, before the Honorable Frank A. Picard, District Judge, at Detroit, Michigan, on Tuesday and Wednesday, April 1 and 2, 1947.

APPEARANCES:

Mr. Townsend F. Beaman and Mr. Robert C. Williams, appearing on behalf of the Plaintiffs.

Mr. John H. Glaccum and Mr. E. J. Balluff, appearing on behalf of the Defendant.

COLLOQUY BETWEEN COURT AND COUNSEL

Mr. Glaccum: Your Honor, I prepared a short trial memorandum. (Memorandum handed to court.)

Mr. Beaman: The plaintiff also has a trial memorandum, your Honor. (Memorandum handed to court.)

Your Honor, this is a patent case.

The Court (reading): "The issue on this suit has been reduced to one of validity of the Turnham patent No. 2,242,408, by the following stipulation:

"That claims 4, 5 and 6 of the patent in issue, No. 2,242,408 to Turnham"—

How can it be the patent at issue, that same number to Turnham?

Mr. Beaman: Mr. Turnham is the inventor and the patent in suit is a Turnham patent No. 2,242,408.

The Court: Is that the patent by which he claims he got these rights?

Mr. Beaman: Yes, your Honor.

The Court: Is there another patent that it is in conflict with?

Mr. Beaman: No. There is only one patent in suit, your Honor, that is the Turnham patent, and claims 4, 5 and 6 are claims of the Turnham patent, and the defendants have admitted that if this patent is valid that they are infringing the claims of the patent.

The Court: I see. So the question is as to validity of the patent, whether it is patentable or not?

[fol. 9] Mr. Beaman: That is correct. There is no question of infringement. That has been admitted.

I believe there should be some explanation as to the parties in this suit. This suit was originally filed in the name of Herbert Bradley and Joe Weingarten as plaintiffs. Since the suit was filed Mr. Bradley has died and Mrs. Bradley has been made a party to the suit as one of the plaintiffs. Mr. Weingarten is the operator of a large chain of supermarkets in Houston, Texas, and he is the owner of the Turnham patent by assignment. Mr. Turnham was one of his employees in his organization and, of course, the defendant is The Great Atlantic and Pacific Tea Company, a large operator of supermarkets and grocery stores throughout the United States.

The Turnham patent—I have a copy here that your Honor might like to glance through—relates to devices used in grocery stores of a self-serving character. They refer to the counter as a checking and cashier's counter, and we have here a model that is fairly well to scale of the disclosure of the Turnham patent which is in suit.

At the time Mr. Turnham made his invention the checking counter that was then being used in the Weingarten

stores was more or less of the construction shown here in this wooden model. That type of counter or a counter similar to it had been used in the grocery trade for about twenty years prior to 1937. These counters were used in some of the first self-serving grocery stores. Piggly Wiggly was one of the first stores. That chain of self-serving stores made its appearance around 1917. And from about 1917 up to 1937 it was the custom and practice in these self-serving grocery stores for the customer, with some sort of basket, to make her purchases and then approach the checking counter, place her basket adjacent to the cash register or the adding machine, and the checker or cashier would take the groceries out, sort them out, add them up, and the transaction would be completed. In this construction here there was a sacker at this point who put the groceries into the bag, and in stores where they had sufficient help prob-
[fol. 10] ably carried the sacked groceries out to the car for the customer.

That was the practice and the state of the art at the time that Mr. Turnham in 1937 tried to do something about the problem that was confronting their markets at that time, and as a matter of fact had been confronting everyone in the self-serving grocery store business since its inception. That is especially during rush hours when more than one person approached this checking counter, there was nothing to expedite the passing of that customer through the checking station and it was a source of great irritation to the customers in these establishments. Well, this problem confronted Mr. Turnham in 1937, and in his solution he put an extension on this counter that we have made readily attachable here for illustration purposes, and into this extension he applied a guide structure, and on the extension, and cooperating with the guide structure, he placed a bottomless frame. Now, the thought was that when the customer approached the checking stand that there would be what they call a pusher boy standing at this point, and the customer coming up with his groceries in a basket or something, would place them into this frame while the checker was serving someone at this checking point. Then as soon as the customer who was being served at the checking point was out of the way and the goods were being sacked, the pusher boy back here would push this forward in a position where the checker could start sorting over the

groceries, add them up, and complete that transaction. Meanwhile, this frame was pushed back to this point and while the person being waited upon at the checking counter was being taken care of, the next customer would put her groceries into this little frame, and as soon as the customer at the checking counter is taken care of, this is pushed forward again and that process is repeated.

This device, the solution of the problem, has particular reference to rush hours where people have a tendency to line up at these checking counters and the line can be only [fol. 11] handled as rapidly as the checker can take care of the customer. Now, with this arrangement it was possible for either the pusher boy, or it later developed that the customer became educated to the point where they would put their groceries into this frame and would push the frame forward, but the advantage of this was that while the checker was waiting on the person at the checking counter, that either the pusher boy or the next following customer had an opportunity to facilitate and expedite her service. The result has been that these devices over a long period of time and under very impartial tests show that during rush hour periods they were capable of handling at least thirty per cent more customers. That is, thirty per cent more people, in a given length of time, can pass down through this aisle and out with their groceries. Also, the cash register at the end of a rush period, as compared with a cash register in another checking stand without this development, will show approximately thirty per cent or more dollar volume of business having passed through this device. If you take the number of customers that pass through the checking counter it runs thirty per cent or better. Thirty per cent is a conservative estimate. In some cases it even goes higher, but there are other elements that might influence that.

The Court: Well, the girl that stands at the cash register puts the groceries back in the sack now, doesn't she?

Mr. Beeman: Well, it all depends. As I understand during normal operations the girl at the cash register can load the groceries into the sack after she has checked them, but in certain other periods they will have a sacker at this point and the girl at the cash register will do nothing but pull these groceries out like this and add them up on the register and collect the money, and she pushes them over

here; the sacker picks them up, puts them in the sack, and probably carries the groceries out to the car.

The Court: Probably.

Mr. Beaman: Yes. They do under some conditions in some stores, your Honor.

[fol. 12] As this was originally designed, Mr. Turnham anticipated that there would be an unloader at this point. He would have a checker at this point, and perhaps a sacker at this point. It was discovered that after the customers became used to this device and its advantages that they would approach the stand, and if there was no unloader at this point they would put their groceries in here and it wasn't very long before they could eliminate the unloader and the customers got so they would put them in here, and that was something that developed as the customer was educated. But you still have to have someone here to unload these at this station; you have to have your checker; and, as I say, under some conditions you have a loader, or the checker does the loading into the sack.

There is another point here I wish to discuss at this particular phase and that is Mr. Bradley. Mr. Bradley was an employee of the A & P Stores. He was a manager, and it is my understanding he had been with them for a great many years, and he was located out here in Jackson. That is where I became acquainted with Mr. Bradley. And he had an idea on how to solve this problem that was confronting the markets which he was managing, and his conception basically was very similar to what Mr. Turnham had in mind. He put an extension onto the counter the same as Mr. Turnham, and then he provided at least two little carriages with wheels on them, and his thought was to put this little carriage on this extension, and the unloader would put the groceries on the carriage while the customer ahead was being taken care of, and then as soon as that customer was out of the way, this is pushed up into that position, and the device that was ahead of it was tilted up in that manner and was passed back to the extension, swung down, and the next customer would unload her groceries upon this device.

Mr. Bradley applied for a patent, and Mr. Turnham's patent in the meanwhile had been applied for and issued. That is, the patent in suit had been applied for and issued. [fol. 13] Well, Mr. Turnham's patent was applied for in

1938. The development was in 1937, as our evidence will show, but the patent was applied for approximately a year later, in 1938. Well, Mr. Bradley's development was in 1938, and the patent office cited Mr. Turnham's patent against Mr. Bradley's.

The Court: Where was Turnham working, down in Texas?

Mr. Beaman: Down in Texas.

The Court: They didn't know each other?

Mr. Beaman: They didn't know anything about each other. Under the rules of the patent office, Mr. Bradley was permitted to file an affidavit that he conceived in his invention prior to Mr. Turnham's filing date in 1938, with the result that Mr. Bradley received a patent which the patent office considered disclosed a new invention, no other prior art, and having carried back of Mr. Turnham—Mr. Turnham was not prior art against Mr. Bradley at that point—but the patent office considered it was an invention to put an extension on these counters, have some one to unload them upon some kind of a conveyance, move the device up to the checking point, and then unload it, and the Bradley patent was granted and the Turnham patent was granted.

The Court: What was the distinction in the Bradley over the Turnham, that tipping up of the cart?

Mr. Beaman: Well, the distinction, the functional distinction between the two was this, that in Mr. Bradley's patent, his development, he had a carriage that had a bottom in, and we now know that if you put a bottom in that carriage that it takes two of these if they are not self-loading and the distinction in this carriage device was the method of getting the groceries up and back, and unloaded.

The Court: That would be cumberson, wouldn't it, to tip that up?

Mr. Beaman: Yes, your Honor, it was cumbersome. Mr. Bradley made a working model and demonstrated it in the [fol. 14] A & P Store in Jackson, and there was some interest shown in Mr. Bradley's device, but it appears that at that time the A & P Company knew of this development in Texas, with the result that Mr. Bradley's device never went into public use, it was too cumbersome, and in comparison with Mr. Turnham's it had no commercial advantages.

We know now that Mr. Bradley's patent, as far as these broad claims are concerned, is invalid. Today when Mr. Turnham testifies he will testify to a conception and re-

duction to practice prior to Mr. Bradley, and it will be necessary for the owner of the Bradley patent to disclaim that invention, that is the claims that were supposed to cover the broad invention.

The Court: What are they in here for then?

Mr. Beaman: Prior to this litigation and before Mr. Bradley knew of Mr. Turnham's prior development, Mr. Bradley wanted to introduce his device to the trade, and the patent firm which I am with had taken out the Bradley patent. Mr. Bradley consulted with us and we advised him that he had at that time the dominating patent, that is the basic patent, and Mr. Weingarten down in Texas had a patent which covered this bottomless type of pusher, and we told Mr. Bradley that he was in no position to license the super market trade unless he could offer them a license under both patents, because under his patent he could only give them a license under the broad conception, and he could give them no license to use what appeared to be the commercial device.

The result was that Mr. Bradley obtained a license under the Turnham patent and offered his patent and the Turnham patent to the A & P Company, that is, attempted to license them.

The Court: Who has both of them now?

Mr. Beaman: At the present time, the Turnham patent is still owned by Mr. Weingarten, and the Bradley patent is owned by Mr. Bradley's widow. And after we got into this matter, we found out that the Bradley patent is invalid [fol. 15] as far as the broad claims are concerned, that Mr. Turnham invented this thing from his conception, that is, the extension, the guides, and the bottomless pusher.

The Court: Have the Bradleys any interest in this suit at all?

Mr. Beaman: The only interest that the Bradley Estate has in this is an interest they have acquired from Mr. Weingarten. That is, Mr. Bradley started out the commercialization, or commercial exploitation, if you want to call it that, of licensing the industry. That is, he wanted to take his patent and the Turnham patent—after we got into it we found out Mr. Bradley had absolutely nothing to offer to the trade or to Mr. Weingarten.

The Court: But that didn't prevent his original arrangements he had made up to that time?

Mr. Beaman: That is right. And Mr. Weingarten, just out of generosity, if nothing else, has given the Bradley Estate and Mrs. Bradley an interest under the Turnham patent. That is a very long story, your Honor, but it is important to this case to this extent, that it shows that Mr. Bradley, who was an expert in food merchandising, in food deliveries, that he had a conception, he knew the problem was there, and he had a conception, but he didn't have the conception how it should be worked. That is, he went to a little carriage here with a bottom in it, and the thing just wasn't practical. Mr. Bradley's development merely accentuates and makes important the contribution that Mr. Turnham made. When this thing is reduced down to its operative form and state, it is a very simple device.

The Court: All right. I had another matter that I didn't finish last week. I think I will take that. You can just rest for a minute here. It isn't going to be very long.

(There was a short interruption while the Court disposed of another case.)

[fol. 16] Mr. Beaman: Your Honor, the Turnham patent, which is in suit here, was applied for in 1938 and the patent issued in 1941. In answer to interrogatories the defendant admitted that they started to use this device in 1942, and had continued to install them in their stores as late as, I believe, December 16, 1946—whether they are installing them at this date or not, I mean additional ones—but the original ones, to my knowledge, are still in use, and we will call witnesses here to show the extent of that use throughout this particular area.

I have here a chart that we have prepared to apply to Claim 6, which is one of the claims that the defendant has admitted that they are infringing, if the patent is valid, and that ties up with this little model that I demonstrated for the Court, showing the different elements of the claim, and what the patent office considered was a novel combination.

In 1944 the defendant was advised of their infringement of both of the patents that I have mentioned here, that is the Bradley and Turnham patents, and negotiations were carried on with the defendant for about fifteen months. We were interested in issuing a license not only to the defendant, but anyone else who was in the super market

business, and could use this device. It was not our intention to curtail its use at all. We wanted to promote it. And after fifteen months' negotiations——

Mr. Glaccum: Your Honor please, I don't think any prior negotiations are any part in this record.

Mr. Beaman: I don't refer to those negotiations except to account for delay perhaps that might be considered to be here in reference to this suit.

I might say this, your Honor, that we are still willing and ready to license the defendant and anyone else, and as a matter of fact, we do have a standard license form which we have submitted to the industry recently, and licenses have been taken, and that is our position as far as the use of this invention is concerned. We want to expand the use. We have no interest at all in curtailing it, and we feel the license fee is very nominal.

[fol. 17] With respect to the adoption, or appropriation of this invention by the defendant, the evidence will show that when this device was installed in Houston, Texas, in 1937, that numerous officials of the A & P Company were in the store and saw the installation, and the defendant is making no claim here to originality on their part, or any prior use ahead of the Turnham development.

The Court: How does this meet the test that, I think, Justice Frankfurter laid down in one of the cases?

Mr. Beaman: In what respect?

The Court: It says, "The spark of genius," or something like that in there.

Mr. Beaman: I think our testimony will show that.

The Court: Wasn't there a test laid down to that effect?

Mr. Glaccum: That is right.

The Court: What was that?

Mr. Glaccum: In the Cuno Engineering case, I believe. There are several cases which we have cited in our memorandum that laid down the test.

Mr. Beaman: I believe that if that is one of the tests that Mr. Turnham's development will qualify under that holding.

The Court: All right.

Mr. Beaman: One point I want to make in my opening here, and also we treat in our direct case, and that is the fact that this need for this device started back in 1917, it existed for twenty years up to the time of this development

in 1937. It wasn't something that just arose and the problem was solved. It has been here all these years. And that is something that the Courts look to in deciding this question of whether something is an invention or not, and whether it is patentable.

Another thing the courts look to is the question of whether the commercial success has been due to high pressure salesmanship and advertising, or whether it has been due to the merits of the device. In this particular case we will show there has been no advertising, and no promotion, as that term is usually known. The device has [fol. 18] been inspected. Different companies selling cash registers took pictures of the device in Houston, their salesman put these photographs in their portfolios and they went out throughout the country and spread the gospel of this device in connection with the sale of cash registers. Various publications have featured this type of development in trade magazines. And to top off the whole thing, here in January 1947 the Department of Commerce in their publication "Domestic Commerce"—it is a magazine that circulates throughout the country—they featured this development as one possible solution to some of the problems confronting grocery retailers.

Now, the patent office record shows that the patent office, on their first consideration of this Turnham application, appreciated that there had been an invention made. This situation, your Honor, is little different from that mock play that we witnessed some weeks ago at the Michigan Patent Law Association. You remember that case, there was repeated argument back and forth between the patent office and the inventor and his attorney. But in this particular case, on the first action, and all subsequent actions, up to the allowance of the claims, the defendant has admitted infringement if the patent was valid. Those claims were promptly allowed by the patent office, and favorably considered from their inception by the examiner.

The Court: That does not prove it is patentable just because they allowed it.

Mr. Beaman: Your Honor, there is a presumption of validity.

The Court: Yes. There is a presumption of validity.

Mr. Beaman: And it is assumed the patent examiner is an expert in his line. At least it strengthens, your Honor our case of invention but, as I say, it is not conclusive.

That is all I have, your Honor.

The Court: Do you care to state your position?

Mr. Glaccum: Very briefly, if your Honor please.

It is true what counsel stated that Mr. Bradley was an [fol. 19] A & P employee, and that he did submit this rather complicated arrangement that he thought up, and that was rejected as impractical.

There has been some talk here of the Bradley patent. The Bradley patent is not in suit. It is not in suit for very good reasons. The claims were only very limited claims which are not infringed by this construction.

Mr. Bradley and Mr. Wiengarten got together in their respective patents, presumably because Mr. Bradley was an A & P Store manager, and stood in position where he might be able to sell the idea to the Tea Company. However, when he approached them with his own arrangement, to the best of our knowledge at that time he had no knowledge of the Turnham device, at least he didn't mention it. The first knowledge that the Tea Company had of the Turnham device was after they had made installations and were threatened with infringement.

This problem did not arise back in 1917. The super market development dates from about 1936 or 1937. And the first time that the defendant had any super markets opened was in 1937. I believe with the exception of the Piggly Wiggly Stores, which were afterward acquired by Kroger, there were no super markets prior to 1936 or 1937. So we did not have a long standing problem.

It is true they used a counter. And in some instances the customer would come in with a basket. Originally they carried the basket. Afterward they found the customer couldn't put enough merchandise in a basket that he could carry, and they furnished him with a little cart, and they would come up to the check counter and put their merchandise either on the counter, or the checker would have to lift it over and put it on.

The Court: You mean after they got the super markets?

Mr. Glaccum: That is right.

The Court: Super markets came in when?

Mr. Glaccum: About 1936 or 1937.

The Court: Piggly Wiggly didn't operate around here anyway?

[fol. 20] Mr. Glaccum: I really don't know.

The Court: Did they have a super market?

Mr. Glaccum: A self-serve store.

The Court: Self-serve, but it wasn't a super?

Mr. Glaccum: I wouldn't say it was a super market, but I think it was the original store where the customer went in and helped themselves and as they went out had their merchandise inspected and paid the value.

The Court: The first super markets of A & P and Kroger weren't self-serve at all, were they?

Mr. Glaccum: The first super markets, I believe, were distinguished from the other stores where the clerk waited on them. As these people would come up, they would put their merchandise on the end of the counter, and there was a tendency to confuse the merchandise of one customer with that of the following. And we can show it was the practice to put a basket between them so that Mrs. Jones' groceries didn't get mixed with Mrs. Smith's, and when they finished with Mrs. Jones they would reach up and pull that basket and push all the groceries down, and the checker would take them in her arm and push them all down to the counter to the point where they would count them. Various means have been used to expedite the checking out of goods. The customers do not like to wait.

It is our contention that this development is just normal skill and good common sense, that there is no invention involved in taking a rack and sliding it along the counter. Prior art shows we have all kinds of devices for moving all kinds of merchandise. Some stores have rollers so that they could put the baskets on a little track and wheel it all around the store, just passing over ordinary rollers. Others had tracks that the boxes could slide on.

This Turnham patent, we maintain, was inadvertently granted. While it is true there is a presumption of validity, that presumption does not exist against art not cited in filing. And we believe if the examiner had seen all of the art which we will submit here, he would never have granted this patent. We think it was inadvertently granted and we say it is obviously invalid.

[fol. 21] Now, Claim 2, for instance, calls for a cashier's counter for a cash-and-carry type grocery, a cashier's station, a portion of the counter to receive merchandise—that is all obviously as old as can be—to receive merchandise being purchased, and means provided on the surface of the counter to enclose and move such merchandise to the

cashier's station. That claim was being infringed when the customer put his basket on the counter and slid it down the counter.

We take the position, and it is fortified by the facts cited by counsel, we have Mr. Bradley up here in Jackson, we have Mr. Turnham down in Texas, the problem arises, they both came to a solution independently, and we maintain that other people throughout the country came to the same answer.

The Court: Would you attorneys come here a minute, please? I think Mr. Fox, you better come here too.

(Counsel confer with Court before the bench.)

The Court: Did I tell you gentlemen that at one time I was the attorney for the Chains in Michigan, of which the A & P and Kroger were a part?

Mr. Glaccum: When we argued the interrogatories you did, your Honor.

Mr. Beaman: I understood that from Mr. Williams, who was down here at that time.

The Court: Kroger isn't in here?

Mr. Beaman: They are using those devices.

The Court: I am a stockholder in Kroger, and I also may have a contract for a store with A & P. Do you think I better hear this case?

Mr. Beaman: I have no objection.

The Court: Of course, I don't think it would make any difference, with the amount involved here, but it just began dawning on me. I did tell you that, didn't I?

Mr. Glaccum: You did when we argued the interrogatories.

Mr. Fox: That is one of the questions I asked Mr. Glaccum, and he told me you had mentioned that to him.

[fol. 22] The Court: If you would prefer to have another Judge, either one of you, hear this case, I will arrange right now to have it done.

Mr. Beaman: Not at all, your Honor, as far as I am concerned.

The Court: Because I want to tell you this, it is one of those cases where no matter which way you go, you will probably be criticized. I probably will be criticized by you if I went against you, and probably would be criticized by them for bending over backwards, because of my past

relationship. As a matter of fact, I had a case against you once.

Mr. Fox: Yes, that is true.

Mr. Beaman: Your Honor, we are perfectly contended to have you try this case on the merits and pass on it.

Mr. Glaccum: I think we have made our position clear, your Honor.

The Court: You claim there isn't anything patentable about this at all?

Mr. Glaccum: That is right. We claim there is no difference than reaching down the counter and pulling it down, or making a little wooden rack to pull it down.

Mr. Beaman: Mr. Weingarten has just installed in his stores in Houston what they call an express counter. Originally if you had less than a dollar purchase, you were privileged to go through the express counter, and then they got in a lot of arguments about a dollar and a quarter's worth of meat in one package, and so now they have that express counter, if you have less than three packages, you are permitted to go right through that counter and out of the store.

The Court: I suggested that to the chain stores ten years ago.

[fol. 23] Evelyn B. Bradley, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Mrs. Bradley, are you the Evelyn B. Bradley who is one of the plaintiffs in this case?

A. Yes.

Q. And you live where?

A. Jerome, Michigan.

Q. And is that near Jackson?

A. It is.

Q. And are you the wife of Herbert N. Bradley?

A. I am.

Q. Mr. Bradley is now deceased?

A. That is right.

Q. At the time Mr. Bradley died what was his employment?

A. He was a manager of one of the super markets in Albion, Michigan.

The Court: Where?

A. Albion, Michigan.

Q. Mrs. Bradley, who was your husband's employer at the time he died?

A. The Great Atlantic & Pacific Tea Company.

Q. How long had he been with that company?

A. About twenty-one or twenty-two years he had worked for them. The last year he had been twenty years in their service.

Q. And how long had he been a store manager?

A. Well, during that time he had, in those years he had been, I might say possibly about nineteen or twenty years. Two of those years he was supervisor. And there was also a year when he was just an assistant manager, due to his health.

Q. Mrs. Bradley, are you familiar with a patent that was issued to Herbert N. Bradley, Detroit, Michigan? I hand you a copy of United States Patent No. 2,317,438, issued to Herbert N. Bradley.

A. I am.

Q. Of your knowledge, were there any devices made similar to the disclosure of that patent?

A. Well, not to my knowledge, anything to this patent, if that is what you are asking me.

[fol. 24] Q. Did Mr. Bradley ever make any working models of his development?

A. Oh, yes, he had made several before he ever—I might say when they put in the first super market, he came home and said: "They have really got something putting in these super markets. Now, the only thing if we can only figure out some way to get the customers through the stands."

Q. And when was this market put in that you have reference to?

A. I believe, of course I am not just definite, but it was on Warren Avenue in Detroit, and I think it was in 1937, I believe. I am not going to say that is true, but it is in that neighborhood, 1937 or 1938, but I believe it was in 1937.

Q. Was Mr. Bradley in Detroit at that time?

A. He was there, helped set up those stores at that time.

Q. Did Mr. Bradley ever manage a store for the A & P Company in Jackson, Michigan.

A. He was an assistant manager at Jackson, Michigan. He did not manage a store there.

Q. And what period was that?

A. I believe that was in 1939 and 1940. I am not just too sure on that, but I believe that is right.

Q. Did you ever inspect any sort of a checking counter that Mr. Bradley made and installed in that store in Jackson?

A. Well, they had it in operation and I believe it was on a Saturday when I went out there and it was still in operation when I got out to the store.

Q. Did you actually see the device?

A. I saw the device, and I saw it in operation. And, of course I saw the working model.

Q. Mrs. Bradley, I hand you three pictures here and ask you if you can identify what is shown in these photographs. Will the reporter mark them for purposes of identification as Plaintiffs' Exhibits?

(Plaintiffs' Exhibits 9, 10 and 11 marked.)

Mr. Glaccum: Since the Bradley patent is not in suit, I don't see the relevancy of this testimony.

[fol. 25] The Court: I don't know.

Mr. Gaccum: I don't like to object.

The Court: He just wants to show the development of the theory.

Mr. Beaman: That is right. I want to show this sort of device was tried out and was not the answer to it. It goes to the invention that Mr. Turnham made, whether the thing was obvious or not, or whether it was so simple, as counsel for defense would like to make out.

A. What would you like me to identify on that? The carrying carts go back. This picture was taken at 330 West Michigan, in Jackson, and it was a device that Mr. Bradley had worked on, and he worked on it for several years. In fact, he kept working, the only thing he couldn't find out was how to get rid of that cart to get it out of the way in a hurry. He had some friends here in Detroit help him, too. They worked nights, all hours, to try to find out some way that cart could be taken back and this pushed over. It worked on little wheels. It worked very simple. But after it was up there and was unloaded it was a problem to get it back. So they made a little slot on the side

and it tipped over and rolled back, which of course, was done very simply by pushing the hand back, and yet it was cumbersome. And he was dissatisfied with it, I know, at that time because he thought it should be more simple.

Q. Mrs. Bradley, would you look at those three photographs and state whether each one of them shows the device to which you have just testified?

A. This one is. This one is. And this one is.

Mr. Beaman: I would like to introduce in evidence the photographs that the witness has just identified, your Honor.

The Court: Any objection?

Mr. Glaccum: Only as to the materiality of the exhibits. [fol. 26] Mr. Beaman: Your Honor, in view of certain prior art that the defense has cited here, it is rather important to evaluate the prior art. Certain devices the defendant has cited as prior art included carriages and carts that could be rolled.

The Court: This is the end——

Mr. Beaman: That is the unloading end. They put the basket on this little platform and there was an unloader.

The Court: You mean this would push up here?

Mr. Beaman: The basket was put on this little platform.

The Court: What basket?

Mr. Beaman: The grocery basket.

The Court: Coming from the store?

Mr. Beaman: Yes. They would take it out of the basket and put it on the little platform. The platform was shoved in this position up here.

The Court: And here is the other one coming back, isn't this, right here?

Mr. Beaman: Yes. It is rather difficult to see there.

The Court: Here is the——

Mr. Beaman: That is the unloader. He is putting it on the little platform.

The Court: This is the same picture?

Mr. Beaman: Yes.

The Court: Same direction?

Mr. Beaman: Yes, your Honor. The customer isn't shown. See they closed certain checking counters to force the public into others. But there you see the unloader was pushing up the order to the checking position. And then this little cart here upon an edge would be brought back and

swung down for the next customer. I think I can demonstrate that right here with this model.

The Court: How long ago was this?

[fol. 27] Mr. Beaman: That was taken in 1940, your Honor. The operation was merely this, loaded it up, moved it up here, bring this back like this, swing it down and unload it, and push it up. What they were trying to accomplish here is exactly what was accomplished by the Turnham device, except in this case this goes up, unloads itself, and comes right back again.

The Court: Isn't that the one that smashes the tomatoes as it does that?

Mr. Beaman: I have had no experience with that. I think that is all I have on direct.

Mr. Glaccum: I have no cross examination.

Mr. Beaman: Thank you very much.

Your Honor, I would also like to offer in evidence as Plaintiffs' Exhibit 12 a copy of the Bradley patent.

The Court: All right, no objection, is there?

Mr. Glaccum: No, except I don't see any materiality.

(Plaintiffs' Exhibit 12 marked.)

Charles M. Wolcott, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Will you state your name, please?
A. Charles M. Wolcott.
Q. How old are you, Mr. Wolcott?
A. Forty-two.
Q. Where do you live?
A. Jackson, Michigan.
Q. And what is your employment?
A. A & P Tea Company.
Q. How long have you been with A & P?
A. Going on twenty years.

[fol. 28] Q. And what is your present capacity with that concern?

A. Manager.

Q. You were subpoenaed in this matter, weren't you?
A. Yes.
Q. Would you state your knowledge of the Bradley development that Mrs. Bradley was just testifying to?

The Court: Well, now, I permitted that to go in, but why does this become material, as affecting the prior art?
Mr. Beaman: No. This gentleman was in the store at the time that device was taken out and it wasn't practical, and this other device came into his same store.
The Court: You mean this——
Mr. Beaman: The Turnham device.
The Court: Well, all right.

(Last question read.)

A. Well, I don't know much about it other than the fact we did set it up in the store and took a picture of it.
Q. Was it operated for any length of time?
A. No. I believe we did run two or three customers through it.
Q. This A & P store of which you are manager, is it known as a super market?
A. Yes.
Q. And how many checking counters do you have in it?
A. Seven.
Q. Are those checking counters equipped with any devices for facilitating the movement of customers through the counters?
A. Six of them, yes.
Q. And what are they equipped with?
A. A pull tray like you have there.
Q. Is it a device similar to this exhibit?
A. Yes.

Mr. Glaccum: Has that been introduced as an exhibit?

(Plaintiffs' Exhibit 13 marked.)

Mr. Glaccum: May I ask what this exhibit purports to show?
[fol. 29] Mr. Beaman: It is supposed to represent one of the checking counters in the A & P store at Jackson, Michigan. It is a model.
The Court: Any objection?
Mr. Glaccum: No.
The Court: It may be received.

Q. Mr. Wolcott, referring to Exhibit 13, does that, in your opinion, represent a small scale model of the device you have in your store?

A. The idea is the same.

Q. And you have six such devices?

A. Yes.

The Court: Has it got the metal strips or wooden strips along the side?

A. It has wooden strips along here.

Q. Mr. Wolcott, were some photographs recently taken of these checking stands in your store?

A. Yes.

(Plaintiffs' Exhibits 14 and 15 marked.)

Q. I hand you photographs which have been marked Plaintiffs' Exhibits 14 and 15. Can you identify those photographs as taken of devices in your A & P store in Jackson?

A. Yes.

Mr. Beaman: I would like to offer in evidence these photographs, Exhibits 14 and 15, identified by the witness.

The Court: Any objection?

Mr. Glaccum: No.

Q. Mr. Wolcott, when were these devices installed in your store relative to this development of Mr. Bradley's?

A. I couldn't answer that; I don't know.

Q. They were afterwards, weren't they?

A. Oh, yes.

Q. And who installed them? How was that installation handled?

A. By the A & P maintenance crew.

Q. Did you have anything to do with the installation?

A. No. That is a routine matter.

Q. Did you request them?

A. No.

[fol. 30] Q. Could you give any estimate when they were put in, whether it was two, three or four years ago?

A. It would be just a wild guess because I haven't paid any attention to it. I would say roughly it was three or four years ago. That is just a guess, though.

Mr. Beaman: That is all I have.

Cross-examination.

By Mr. Glaccum:

Q. Prior to the installation of these devices, was it customary to move the merchandise along the counter by hand?

A. Yes.

Q. Going back to when Mr. Bradley put in his experimental counter, I understand it was only in there for a few days, or few hours?

A. One day.

Q. And do you know whether it was called to the attention of any of the officials of the Tea Company?

A. Oh, yes. We had permission to put it in and take a picture, and then we did run a few customers, two or three customers through it, I don't just recall how many.

Q. Prior to the installation of these racks, you testified that it was necessary to move the merchandise by hand. Would the checker reach up and pull the packages down to where they could reach them?

A. Yes.

Q. In your experience did you find that the customer will pick up his merchandise and put it on the counter?

A. Yes, most of them, after being educated to it.

Mr. Glaccum: I have no further questions.

Mr. Beaman: That is all, Mr. Wolcott.

The Court: Call the next witness.

[fol. 31] Bernard Francis Andrews, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct Examination.

By Mr. Beaman:

Q. Will you please give your name and age?

A. Bernard Francis Andrews, thirty-three.

Q. And your residence?

A. Jackson.

Q. Jackson, Michigan?

A. Yes, sir.

Q. And what is your employment, Mr. Andrews?
A. Manager in a Kroger store.
Q. Is that a Kroger store in Jackson?
A. Yes, sir.
Q. How long have you been with the Kroger Company?
A. About fourteen years.
Q. Is this store that you are now managing a so-called super market?
A. It is.
Q. Is it self-serving?
A. Yes, sir.
Q. And has it been recently remodeled?
A. It has been remodeled.
Q. Prior to this time this store was remodeled, was it self-serve?
A. It was.
Q. Do you have in your store what we refer to as a pusher, counter pusher?
A. We have this presorter.
Q. Yes, presorter or counter pusher?
A. Yes, we do.
Q. You are referring now to the pusher in connection with Exhibit 13, is that correct?
A. That is right.
Q. Prior to your remodeling, did you have a presorter or counter pusher?
A. Prior to remodeling, I wasn't in the store and I couldn't say.
Q. You don't know whether they had them or not?
A. I don't.
Q. Do you now have them?
A. We now have them, yes.

Mr. Beaman: That is all.

[fol. 32] Cross-examination.

By Mr. Glaccum:

Q. How long have you been in the Jackson store, Mr. Andrews?
A. In this particular store, I have been there since February.
Q. Are you familiar with the volume that that store does?

A. The volume?

Q. Volume of business?

A. Yes, sir.

Q. Now, prior to the time that you went to this store, in what store were you located?

A. I was in a store in Brooklyn, Michigan, a Kroger store.

Q. Was that store equipped with these presorters?

A. No, sir.

Q. Can you tell us whether the store in Brooklyn, or can you compare for us the volume of business done by the store in Brooklyn with that in Jackson, which was the larger?

A. The store in Jackson was the largest, is the largest.

The Court: Who is he with now, Kroger?

Mr. Glaccum: Kroger.

The Court: Did he say they had these presorters in there?

Mr. Beaman: Yes, your Honor.

The Court: I asked if Kroger was in — way affected with this thing.

Mr. Beaman: I told you they were, we were calling a witness from Kroger.

The Court: I didn't understand you said that they were.

Mr. Beaman: Kroger, A & P and most all the super markets are now using this device, your Honor.

By Mr. Glaccum:

Q. Could you give us some idea of the comparison——

The Court: I think we better take a recess, gentlemen.

(Recess.)

[fol. 33] (The following proceedings were had in chambers):

The Court: I have informed these gentlemen that I don't think I should go on with this case. I have told them I am a stockholder in Kroger's, and that I formerly was the attorney for an association which the A & P and Kroger's were both in, and that I am one of a group in a contract of a store that is going up in Saginaw that the A & P are going to go into, but the store isn't built yet, and I have part of a contract with them. I had it for four or five months. I didn't have it when you were here before.

Mr. Beaman: The plaintiff would prefer to hear this case and go forward with it.

The Court: Probably the defendant doesn't.

Mr. Glaccum: We have no objection, but I appreciate how you feel.

Mr. Beaman: I think the position would be a little different if we were trying to curtail this thing, looking for injunctive relief on the thing. A company the size of the A & P would pay us a dollar a unit. The patent has ten years to run. So in dollars and cents it amounts to very little.

Mr. Glaccum: I know Kroger definitely says they would not enter into any agreement, and we take the same position.

The Court: May it appear on the record that Judge O'Brien is sick. I have contacted Judge Lederle and asked him to accept the case because the witnesses are here and one of them is from Texas.

Mr. Beaman: Three of them from Texas.

The Court: I also contacted Judge Levin and Judge Koscinski. I can't get any of them to accept the case. All the attorneys agree that the Court shall proceed. The Court [fol. 34] is not anxious to proceed because I don't like to be put in that position.

(Further discussion off the record.)

Mr. Beaman: We certainly would appreciate it because we have three witnesses from out of town. Mr. Weingarten is flying in this morning; he should be here now.

The Court: I don't suppose the A & P or Kroger, or anybody would feel that if I did hold against them that I was bending over backwards. Of course, you would go up on your appeal anyway. If I am wrong, I am wrong. All right, gentlemen.

(The following proceedings were had in open court):

By Mr. Glaccum:

Q. Mr. Andrews, I believe you testified that the Jackson store was bigger than the Brooklyn store?

A. That is right.

Q. What is the relationship of the cash register volume that is, the business that passes through the individual cash registers, is it greater at Brooklyn than Jackson, or vice versa?

A. Well, I could pick out one particular register in Brooklyn that does a greater volume than any particular one in any particular store in Jackson, Kroger store in Jackson.

Q. We are only speaking of the Kroger stores that you worked at.

A. That is right.

Q. The Brooklyn store, as I recall your testimony, has no presorter or rack?

A. It has not.

Q. The merchandise is pushed along by hand on the counter?

A. That is right.

Mr. Glaccum: That is all.

Mr. Beaman: That is all.

[fol. 35] Frank H. Bucher, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Your name is what?

A. Frank H. Bucher.

Q. And your age and residence?

A. Forty-six, Detroit.

Q. What is your occupation?

A. Director of Operations of the Great Atlantic & Pacific Tea Company—Central Western Division, I should qualify that.

Q. And what are your duties?

A. I have numerous duties. One is the distribution of merchandise. Another is the design and set-up of stores, and the maintenance. Another is labor relations and various other incidentals.

Q. In connection with the design and set-up of stores, does that include the checking counters?

A. Yes.

Q. Have you modified your checking counters within the last five or six years?

A. Our checking counters have gone through a constant change since the inception of the super market.

Q. Well, when was it that you put an extension on a counter as appears in Plaintiffs' Exhibit 13? I refer now to the extension, that part of the counter which projects over the main part of the counter and has supporting legs under it.

A. The first one that I recall, again in this division, was in 1941, the forepart of 1941, I would say around April.

The Court: You say in this division. Is there a reason for that? Did it come from some other division?

A. No, I wouldn't be entirely familiar with what might have taken place in some of the other divisions.

Q. Was this installation in an A & P store?

A. Yes.

Q. And did they use, in that installation you refer to in 1941, something corresponding to this three-sided pushing device?

A. No.

[fol. 36] Q. What did they use?

A. A conveyor, a moving belt.

Q. Was that an experimental installation, or was it something that was permanently installed for use in the store?

A. It was an experimental installation both from the necessity or the desire to move people through the check stands at a more rapid pace.

Q. Were there any further installations of that device?

A. That was reinstalled in another store.

Q. Has this conveying belt that you refer to gone into use in your division?

A. It is still in existence, as I recall.

Q. This single installation?

A. Yes.

Q. What other device, if any, have you been using in your stores?

The Court: Wait a minute, I am interested in that. How did that work?

A. That worked fairly well.

The Court: I mean, how did it work, how did it manipulate? Where did the belt go?

A. I see, excuse me. The belt traveled on top of the stand here and disappeared in the stand about this point, and came around a pulley in such fashion.

The Court: And the groceries would be crowded off onto the——

A. The groceries would be put on here and moved down to where the checker would check them and pass them on back to a bagger who would bag them.

The Court: Supposing the checker is busy, can't take care of the checking all at one time?

A. There was a device to start and stop, and to separate one customer's order from the other. The table moved very slowly.

The Court: I see. The checker could stop it?

A. That is right. With a movement of the knee she could stop that belt.

The Court: All right.

[fol. 37] By Mr. Beaman:

Q. Referring to Exhibit 13, you have devices similar to that shown in your A & P stores in this district?

A. In some of them, quite similar to that.

Q. Could you make any estimate of the number of stores that are so equipped?

Mr. Glaccum: I will object to that question. I don't believe that——

The Court: Isn't that a question of damages?

Mr. Glaccum: Until he establishes a right to damages, any information that might affect——

The Court: Well, the exact number, yes, but that they are in several stores, I will let him show that. You don't have to give the exact numbers.

A. They are in several stores.

Q. How extensive is this district that you have reference to?

A. It is called the Central Western Division and takes in part of the states of Michigan, Ohio, Illinois, Tennessee and Kentucky.

Q. Are there devices of this type in each one of those states that you have mentioned?

A. Yes.

The Court: What part of the State of Michigan? Don't they have the Upper Peninsula?

A. Part of the Upper Peninsula. Over in the westerly portion, that comes out of Milwaukee, that is in the western division.

Q. Mr. Bucher, when, to your knowledge, were devices corresponding with Exhibit 13 installed in your stores?

A. As I recall, shortly after the use of the conveyor we started to use a device similar to this, and that would be some time in the forepart of 1942.

Q. And when would you fix the time, when you installed something that corresponds substantially to Exhibit 13?

A. Well, it involved the same principle as this. The first ones we put on didn't have the extension.

[fol. 38] The Court: Didn't have the what?

A. Didn't have the extension on the stand.

The Court: That is just an extra table, that is all that is.

Q. Mr. Bucher, in connection with installation of these devices in your various stores, how is that handled?

A. I don't quite follow you.

Q. I mean, who makes the decision for installing these devices in the stores?

A. We standardize on both equipment and stores, and the centralization of that authority, the investigation is at our headquarters office, which is in Detroit. The information is then passed on to the units, various units in the division, with plans and instructions as to how certain installations are to be made.

Q. And those instructions come from the headquarters in Detroit?

A. That is right.

The Court: You make that decision, don't you?

A. Yes.

The Court: And when you build a new counter, or new store now, you don't put on any extension, you make it all one now, don't you?

A. Yes, your Honor.

The Court: The extension was necessary because when first constructed it didn't extend back far enough, isn't that it?

A. Yes. It might be called an extension. It is supported sort of in a cantilever fashion out beyond the stand.

The Court: But when you make them today——

A. It is all made in one piece.

The Court: That is what I supposed.

By Mr. Beaman:

Q. Is there any general supervision in your organization for your other districts, as far as counters are concerned?

A. I am not sure that I understand you when you mention districts.

[fol. 39] Q. Well, I believe you stated that in your particular district that decision was made here in Detroit at the headquarters for standardization throughout the district, is that correct?

A. In the division, Central Western Division.

Q. How many such divisions does A & P Company have?

A. There are seven divisions.

Q. Is there a similar standardization throughout these divisions?

A. I am not familiar with the method that they use in installing their stores, whether they standardize from a divisional headquarters or whether the units themselves.

Q. Have you ever seen similar devices in other divisions?

A. Not exactly, not like that. I have seen devices that are used for the same purpose.

Q. Did they involve some sort of extension, or its equivalent?

A. The one in particular that I recall involved a turntable where instead of sliding the merchandise down toward the checker there was a large wheel, like a wagon wheel on an axle, on a horizontal plane, and the customer would put his merchandise on a portion of that wheel while the checker was checking the merchandise from the balance of the wheel.

Q. Has that device gone into general use in any of your stores?

A. I do not know. I happened to see that at one time when I was visiting.

Q. But to your knowledge it has not gone into general use?

A. Not to the best of my knowledge.

Mr. Beaman: That is all.

Cross-examination.

By Mr. Glaccum:

Q. Mr. Bucher, what is the purpose of devices such as you have testified about?

A. They were born from the desire to move people through the stands faster in order to eliminate the waiting period, or reduce the waiting period.

[fol. 40] Q. Will you tell us how long the Tea Company has operated so-called super markets?

A. In the forepart of 1937, as I recall, in this division, we installed our first super market.

Q. And that is true, is it not, of all self-service stores?

A. I would say all self-service stores. Previous to that there had been self-service stores where customers would pick up merchandise and carry it to counters where the merchandise would be checked and bagged. They were much smaller volume markets.

Q. Since 1937, have you made a number of developments to expedite the passage of customers through the checking counters?

A. That has been the constant problem, and there has been a constant transition over a period of time to accomplish that by various means.

Q. By what means or methods is that accomplished?

A. Well, the design and layout of the store could be one means of accomplishing it, making the design of the equipment clear vision so that the customer can readily see what she is looking for, select it, and place it in her conveyor or carriage. Then by the advantageous use of help, clerks, and so forth, the customers are speeded through the stands.

Q. How many ways are there, to your knowledge, that have been used to move merchandise along the checking out counter?

A. Well, from what I have seen, I have seen the conveyor, I have seen the so-called circular method.

The Court: The wagon wheel?

A. Wagon wheel.

The Court: Where is there one installed?

A. I saw one in Columbus, Ohio. It seemed to have a lot of merit because it did the job.

The Court: Is that a patented arrangement?

A. I am not sure.

Q. Is the conveyor a patented arrangement?

A. It is not. That is, we never attempted to patent it.

[fol. 41] The Court: It is your own?

A. Yes. We conceived of it, as a result of our desire to try and find a way to speed up the operation of the

stands. And finally that seemed too complicated for the purpose that it accomplished, and from that we grew into a more simple method such as this.

Q. Prior to the use of racks, similar to Exhibit 13, how was the merchandise moved along the counter?

A. Well, at one time the merchandise was moved by hand, by the hand of the checker.

Q. In other words, the checker would have to reach out and move it along?

A. Yes. As a result of the desire of the customer to want to help and put merchandise on the end of the stand, that merchandise became confused with the previous customer, so that to protect her we used to place a basket in between the two customers and as one was checked out the checker would reach up and slide the merchandise down where she could handle it and see the prices to better advantage.

Q. Now, in the course of your duties, do you from time to time visit other super markets?

A. Yes.

Q. And are you generally familiar with the way they handle their merchandise?

A. In general.

Q. You were testifying before as to the various means of moving merchandise over the check-out counter, and you mentioned the turntable or wheel, and the hand method. Are there any other means to do that?

A. Well, I have seen a recent development wherein one of our competitors have designed a carrier that is the same level as the top of the stand of Exhibit 13, and when the customer approaches the stand the entire top of her carriage which would hold the merchandise would be slid on the stand and automatically pulled down in front of the checker.

Q. So that the carrier becomes a portion of the stand temporarily?

A. To a certain extent.

[fol. 42] The Court: What becomes of it?

A. It goes back on the buggy again. The buggy comes through the aisle where it slips back on the buggy, the same as the baskets that are used in our stores go back

on the buggy. It is sort of a basket but it would be, I think, better described as a tray.

The Court: A moving tray?

A. That is right.

The Court: Goes all the way around the store, does it?

A. Yes. Serving the same purpose as a basket.

The Court: You have a conveyor arrangement all around the store?

A. No. It is on wheels. It is on a carrier. It would be something like this, with a little cross piece here.

The Court: It is on wheels, has wheels on the bottom, comes up there and just slides right off?

A. Slides off, that is right. I have seen that in some competitive stores.

Q. Have you ever seen a rack similar to that forming a portion of Exhibit 13, used for other uses?

A. You mean other than in a grocery store?

Q. Other than on a checking counter?

A. Well, the principle of it to me is familiar. I have seen many, many uses for a similar arrangement, either pulling or pushing. I know the excavating contractors use a device such as that for moving dirt, pushing dirt away from them, or pulling it toward them.

The Court: What do you mean?

A. What is called a back filler, or a bulldozer, or various other types of such equipment.

The Court: A bulldozer just goes down, lifts up the dirt and drops it off some place.

A. A bulldozer merely pushes it.

Mr. Glaccum: A bulldozer is a machine with a blade on the front that pushes the dirt.

[fol. 43] A. We use a device in our bakery for moving bread into traveling ovens, a similar principle to that.

(Defendant's Exhibits A and B marked)

Q. Mr. Bucher, I show you two pieces of wood, marked for identification A and B, and ask you if you can tell us what these are?

A. They look like a device that is used for moving and separating groceries in a store of one of our competitors.

Q. Would you explain, please, just how they are used?

A. Well, in one sense they are used to separate the merchandise of one customer with that of the other.

Q. On the checkout counter?

A. That is right, on the checkout counter. Then, after they have served their purpose, acting as a divider, the stick is used then in some cases to pull the merchandise down again toward the checker where it can be reached.

The Court: All I can see is a couple blocks of wood there.

Mr. Glaccum: That is all they are, but they are used for the same purpose, to move the merchandise and separate one order from the other.

By Mr. Glaccum:

Q. And have you seen those in actual operation?

A. Yes.

Q. In what stores, please?

A. They are in a competitor's store in Detroit.

Q. Here in the city?

A. Yes.

Q. Is it not the general policy of the Tea Company, as well as its competitors, to modify these counters whenever they can see any recent improvement?

A. All of the entire organization, I would say, is constantly on the alert to find new ways and means of doing a better job of merchandising and moving the customers through the store.

Q. Now, referring to Exhibit 13, that doesn't have any push handle, does it, as such?

A. I am not sure I understand your question.

[fol. 44] Q. Well, perhaps it would be a little clearer, I refer you to the Turnham patent, in suit, more particularly Figure 1 thereof, and the part marked 24; that is a pushing handle, is it not?

A. It might be so considered.

The Court: You mean this one over here?

Mr. Glaccum: No, your Honor. This model, there is a handle on the back to push it.

Mr. Beaman: I would like to identify this model as Plaintiff's Exhibit 16, that is the model that corresponds to the construction shown in the Turnham patent in suit.

The Court: Well, this pulls it?

Mr. Glaccum: That is correct.

The Court: That pushes it. Who does the pushing there?

Mr. Glaccum: The patent describes a pusher boy who

would stand at the rear here and sort the merchandise and push it down to the checker at the proper time.

The Court: Who does the pushing here?

Mr. Glaccum: The checker.

The Court: Whose scheme is this?

Mr. Glaccum: That is the defendant's. Exhibit 16 is the construction shown in the patent.

The Court: Does that anticipate a pusher boy?

Mr. Glaccum: This calls for a pusher boy.

The Court: This does not?

Mr. Glaccum: This does not.

The Court: Of course, if theirs is patentable, you have made an improvement on their patent.

Mr. Glaccum: But not a patentable improvement.

Mr. Beaman: Your Honor, in actual use this was designed, to start with, for a pusher boy. They soon found out that the customers would push it. The checker takes ahold here and pulls it up, or the customer can pull it up. That handle [fol. 45] you see there is operated by the checker, but the operation, the force exerted upon the groceries is a pushing action.

By Mr. Glaccum:

Q. The devices used by the defendant here did not have any metal railing or interlocking frames?

A. No.

Q. Just simply a strip of wood on the outside counter to guide the rack?

A. Yes.

The Court: That device works right on the frame itself?

Mr. Glaccum: It has an interlocking channel, channel member that locks in there, and the other side slides in the other channel.

The Court: This does not slide on anything except between two pieces of wood.

Mr. Glaccum: On the top of the counter.

Mr. Beaman: Your Honor, I have no objection to this line of examination but I just want to recall the fact that we admit the claims of our patent would be infringed if the patent is valid. So it is not a question here, in view of this stipulation, of trying to find a difference in these constructions, so far as the application of the patents is concerned; that has been stipulated by the attorneys.

Mr. Glaccum: We are not questioning that. The only purpose is to show when the problem was presented the Tea Company solved it in a slightly different way, but it is a different way.

The Court: In other words, you got the theory.

Mr. Glaccum: In other words it is our argument that it is a logical solution to a problem that came up.

Mr. Beaman: Your Honor, on that point we will show that the device did not come to defendant in this shape at all, that the changes were made at the Weingarten Company, [fol. 46] the owner of the patent, and what the A. & P. Company appropriated was substantially what they were using in Houston, is substantially what is shown in Exhibit 13.

Just a few questions, Mr. Bucher.

Re-direct examination.

By Mr. Beaman:

Q. Where did the term "super markets" come from?

A. I do not know where it originated, but I understand it developed down in Long Island back in the late 1930's. Who was the coiner of the name "super market" I do not know.

Q. What is a super market?

A. Well, a super market we consider as a market that does a large volume of business at the minimum cost to the customer and maximum operating efficiency.

Q. Weren't there large stores functioning in that manner prior to 1937?

A. Not to the same degree, at least not to my knowledge.

Q. Weren't there large stores in this country of a self-serving nature before 1937?

A. I do not believe they anywhere near approached the same volume of business. They were on an entirely different principle, it seems to me.

Q. Do I understand you apply the word "super market" to a store of, we will say, ten thousand square feet; if it was seven thousand square feet you might call it something else?

A. No. The size doesn't determine whether or not it is a super market.

The Court: What does determine it?

A. We determine that on the anticipated volume of business.

The Court: That is size, isn't it?

A. Not necessarily, not size of the store, that is size in——

The Court: Well, in volume. It is a question of the arrangement that you have inside the store that you can do that business, isn't that it?

[fol. 47] A. That, plus the potential volume.

By Mr. Beaman:

Q. Don't you have knowledge of large grocery stores prior to 1937?

A. I have knowledge of large grocery stores.

Q. How far back does your knowledge go of a large self-serving grocery store?

The Court: Wait a minute, you didn't ask him that. A self-serving grocery store and grocery store is an entirely different thing. I know any number of large grocery stores.

Q. I would like to change my question, your Honor, to read: How far back does your knowledge go of large self-serving grocery stores?

A. Well, large, there is a degree of size. I would rather answer you as far as the super market is concerned. It is generally accepted by the industry that the super market had its inception back in the middle of the late thirties.

The Court: How about Piggly Wiggly? Was that a super market even though they didn't call it a super market?

A. They had what is called a self-serve market. The first super market of Piggly Wiggly that I have any knowledge of was in Cinncinnati, and that was installed somewhere around 1934, I believe, 1933 or 1934, and that was called a super market.

The Court: 1934.

A. 1934 or 1935, in there.

The Court: You picked your groceries up and paid for them and came out by a counter like this, is that right?

A. That was quite a similar operation to the present super market.

The Court: I suppose they came right to the cashier, had a basket of groceries and put them on the counter. At first I don't suppose they had anything.

A. The entire industry has changed as time has gone on. The business was new, and it required the thinking [fol. 48] of people who were operating the stores to find a better way to do the job.

By Mr. Beaman:

Q. This conveyor, and this wagon wheel development that you referred to, was that before 1937 or subsequent to 1937?

A. Subsequent.

Q. Subsequent. Was it within the last two or three years?

A. I believe I mentioned the date of the conveyor.

Q. I think you did, 1941.

A. It was in the fore part of 1941, I think April or May.

Q. And when was this wagon wheel construction?

A. I do not know when it was constructed. I saw it a number of years ago, maybe four or five. How long it had been in use, I had no way of knowing.

Q. Mr. Bucher, you were trying to describe to the Judge a construction which wheeled around the store and had a platform on it. Just a matter of interest, Figure 12 of the Bradley patent, is that such a device?

A. I don't recognize it. I don't quite follow this here. This is merely a top tray. I think that is in existence here in Detroit, could be seen. It didn't resemble that in any manner.

Mr. Beaman: That is all. Mr. Glaccum, do you have anything further?

The Court: Bradley's tray, as a matter of fact, had it been on top of the wagon and gone right from the wagon to the counter, that would have been what they have now, isn't that right?

A. I think it is of an experimental nature.

Mr. Beaman: Your Honor, it isn't important to this case, but Mr. Bradley's patent showed several different devices, including in Figure 12 something you just referred to, and I think there is also a conveyor apron in that patent.

The Court: Are they using that?

Mr. Beaman: Not to my knowledge. These are some things that occurred to Mr. Bradley, and he showed them

[fol. 49] in his patent. I don't think he ever reduced them to practice.

The Court: You mean this would slide off?

Mr. Beaman: That is what I understand. It would slide off. But you notice other figures in the Bradley patent, they have conveying rollers and other schemes, none of which ever, to my knowledge, have ever gone in use.

The Court: This conveyor system was put in in 1941, just about the time of the war. Probably materials figured into that.

A. It required the use of a motor and belt and, as I say, seeing that in operation it occurred to us we could accomplish the same thing in a more simple manner, and it was from that thinking this puller developed. It was installed in the same store the conveyor was developed.

The Court: I suppose with the conveyor you have to see the motor is taken care of. Every time something went wrong it would make it that much harder.

A. The difficulty with the conveyor was it was almost impossible to sychronize the movement of the merchandise along the table. The checker had to be equipped to efficiently take care of the customer with three or four items of purchase, as well as the customer with twenty or twenty-five.

Mr. Beaman: I have no further questions, Mr. Bucher.

The Court: How about this wagon wheel? That strikes me as having interesting possibilities. I suppose it was divided in two halves.

A. Two halves.

The Court: And the back half I would put my groceries on, and when the time came just whirl that around.

A. That would be right in front of the checker then and in the interim the side that had just been emptied would be back in front of the customer. The accomplishment was exactly the same. It has certain advantages and certain disadvantages.

[fol. 50] The Court: You don't know whether that is a patented device, do you?

A. I do not know.

Mr. Beaman: It hasn't been cited here, your Honor.

Mr. Glaccum: Not for the purpose of the case, but I can inform the Court it was submitted to me for an opinion and I told them it wasn't patentable.

The Court: Suppose they went out and got a patent anyway. It looks like an interesting device. No matter what you make, somebody comes along and makes something smarter than you all the time.

Mr. Beaman: Mr. Glaccum, would you mind stating when that was presented to you?

Mr. Glaccum: To the best of my recollection, three or four years ago. I would have to check my files.

Mr. Beaman: That is all.

Your Honor, this would, as far as I am concerned, be a very good time to interrupt for noon.

The Court: We go until half past.

Mr. Beaman: I will call Mr. Smith.

(Plaintiffs' Exhibit 16 marked.)

THOMAS I. SMITH, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Please state your name and age.

A. Thomas I. Smith, twenty-six.

Q. Your address?

A. Lansing, Michigan.

Q. What is your business, Mr. Smith?

A. I am secretary to Market Baskets.

Mr. Glaccum: Speak up a little louder.

A. Secretary of the Market Baskets.

[fol. 51] Q. And what is the Market Basket?

A. Super Food Market.

Q. How large a store is that?

A. We have four units, four stores and they vary from ten thousand feet up, square feet.

Q. Do you have checking counters in those stores?

A. Yes, sir.

Q. And how many checking counters do you have in each store?

A. I think we have twenty.

Mr. Glaccum: What was that last answer?

A. Twenty or twenty-four.

Q. Mr. Smith, referring to Plaintiffs' Exhibit 13, in these checking counters, will you state whether or not you have devices that are similar to this extension with a U-shaped frame on it?

A. Yes, we do have.

Q. And when were those installed?

A. I couldn't say to be exact, probably about three years.

Q. And why can't you say?

A. Because I wasn't in the organization at the time they were installed.

Q. Where were you at that time?

A. I was in the service.

Q. Were these stores built before you left for the service?

A. Yes, they were.

Q. And these devices were installed while you were away?

A. That is correct.

Q. And are they being used at the present time?

A. Yes.

Q. I hand you a document entitled "license agreement" dated February 7, between Joe Weingarten of Houston, Texas, as licensor, and George T. Smith, Market Baskets of Lansing, Michigan, licensee, and ask you if you can identify that agreement?

A. Yes, this is the agreement.

Q. Does your signature appear on that agreement?

A. Yes.

Q. And what is the nature of that agreement?

A. We have to pay Mr. Weingarten a royalty on his inven- [fol. 52] tion per year on the amount of checking counters that we have, and we have eighteen of these devices in our four units.

Mr. Beaman: The license agreement identified by the witness is to be marked Plaintiffs' Exhibit 17, and I would like to offer it in evidence.

Mr. Glaccum: I will object to it as to the issues here, particularly in view of the fact it is dated February 7, 1947, long after this litigation started.

The Court: There may be some cases on it.

(Plaintiffs' Exhibit 17 marked.)

Mr. Beaman: In connection with commercial success and recognition, there are many cases on the subject that licens-

ing, that is recognition of the patent by licensing goes toward the establishment of this presumption of validity which is in issue in this case.

The Court: But here is a license that has just been granted within the last month.

Mr. Beaman: That is right, your Honor. Well, it was granted February 7, 1947. This is the standard license agreement that I referred to as having been prepared back in 1944.

The Court: Well, what would prevent a man from starting a lawsuit, then going out and licensing a lot of people and bringing them in court and show they licensed them?

Mr. Beaman: Not a thing, your Honor. The fact the licensing took place after the lawsuit certainly detracts from the weight of it.

The Court: Have you any other licenses you are going to introduce?

Mr. Beaman: This is the only one. We have other licenses, and we are negotiating with the whole industry on this matter.

The Court: I know, but that is just the point at issue here, isn't it?

Mr. Beaman: That is right.

The Court: Well, it is in anyway, and I couldn't erase [fol. 53] it from my mind no matter what happened. I have it before me. We will let it stand. That is very much like self-made evidence.

Mr. Beaman: Well, your Honor, I agree with you on that point except to this extent, we have consistently, since 1944, been endeavoring to license the super market industry and this is, you might say, the only fruit that has been borne up to this point, but there has been no change of policy and it isn't something that was just brought to light in connection with this particular case.

The Court: Have you asked for an injunction in any of these cases?

Mr. Beaman: I believe in the pleadings we have followed the standard prayers, and that there is an injunction.

The Court: All right.

Mr. Beaman: I have no other questions.

Cross-examination.

By Mr. Glaccum:

Q. I just want to make it clear, Mr. Smith, to the best of your knowledge you have been using racks similar to Exhibit 13 for around three years?

A. I would say so, yes.

Mr. Glaccum: That is all.

Mr. Beaman: That is all.

Mr. Turnham.

ELLIS D. TURNHAM, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Will you state your name and age, Mr. Turnham?

A. E. D. Turnham; my age is fifty-three years.

Q. And where is your residence?

A. Houston, Texas.

[fol. 54] Q. Are you the Ellis D. Turnham who appears as the inventor of U. S. Patent in suit here, No. 2,242,408?

A. I am.

(Plaintiffs' Exhibit 18 marked.)

Mr. Beaman: I would like to offer in evidence the patent in suit, your Honor. That is a copy of it you have there.

The Court: All right. Any objections?

Mr. Glaccum: No.

The Court: It may be received.

Q. Mr. Turnham, what is your educational background?

A. Well, not too much. I graduated from Birmingham High School, and I had two years in Alabama Polytechnic Institute at Auburn, a preparatory course toward a mechanical engineer's degree. I left there after my second year for financial reasons more than anything else and intended really to go back but I never did make it.

Q. What is your business at the present time?

A. I am in the retail grocery business.

Q. And how long have you been in the retail grocery business?

A. Well, I have been in the retail grocery business all my life. That is, my father was in the retail grocery business ahead of me, and that is practically all I know.

Q. When did your experience start?

A. Well, on my own, I left Auburn in June 1911, and came to Houston and I went to work for the Auditorium Grocery Company; that was in about the first of July, 1911.

Q. Was that a self-serving grocery?

A. No, sir.

Q. Are you connected with self-serving grocery stores at the present time?

A. I am.

Q. When was your first connection with self-serving grocery stores?

A. In August 1919.

Q. And with what concern?

A. I helped a newly formed organization. It was the A B C Stores. They had just formed this organization and [fol. 55] started to open a couple of stores just as I came out of the service in 1919, so I went to work for them immediately after getting out, and they were self-serving stores.

Q. Will you explain, Mr. Turnham, in the self-serving stores in 1919, how the merchandise the customer bought was handled?

A. Would you allow me to stand up?

The Court: Yes, certainly. This is 1919, in the A B C organization?

Mr. Beaman: That is right, your Honor. For the record, the witness is referring to Exhibit 13 with the extension removed.

A. Of course, our counters in those days didn't have the register offset. The register set on the counter here. The checker pen went back in here. The register set here. Of course, in those days the customer came up with a wicker basket or splint basket, some had one, some had another. They carried it and they had to come by this register and set it up on the counter. The girl checked it from here, out on the counter here with the basket between, here. And that was common practice up until, oh, I would say, as far as I know up until about 1927, that type of counter.

Q. What change in the counter was made in 1927, as you recall?

A. Well, it was along about that time that there were several counters come out where they used this extension over here, and put the register over here so the customer could set the basket up on here.

Q. You have reference to the location of the cash register as shown in Exhibit 13?

A. Yes. Practically this same set-up, probably with a little different arrangement here.

Q. Now, going back to 1927, what changes have taken place since that time, if any?

A. Well, there are all the changes in the world, in this respect, that since that time practically the whole grocery industry has gone self-serving. Up until that time the predominate part of it was not self-serving. Does that answer your question?

[fol. 56] Q. What I am asking you about in the construction of the checking counter from 1927, say, until 1935. Were there any changes made during that period?

A. Well, yes, up until 1937 I know of no change that was made, that is I didn't know of any personally. And in 1937, I developed this pusher for the counter.

Q. In 1937, Mr. Turnham, who were you with then?

A. I was with Weingarten.

Q. And how long had you been with that concern?

A. I went to work for Weingarten in 1921, February 1921.

Q. And have you been with Mr. Weingarten from 1921 up to the present time?

A. Yes, sir.

The Court: I think we will take a recess now. We usually recess until two o'clock. Supposing we have an hour recess instead of an hour and a half, and close at four o'clock instead of four-thirty.

Mr. Beaman: It is perfectly all right with me.

The Court: All right, gentlemen, recess until one-thirty.

(Whereupon at 12:30 o'clock P. M. a recess was taken until 1:30 o'clock P. M.)

Tuesday, April 1, 1947,
1:30 o'clock P. M.

(The Court met pursuant to recess.)

ELLIS D. TURNHAM, having been previously sworn, resumed the stand and testified further as follows:

Direct examination (continued).

By Mr. Beaman:

Q. I think you just testified, Mr. Turnbam, that you had been with the Weingarten Company from 1921 up to the present time, is that correct?

A. That is correct.

Q. And very briefly, what has your capacity been with [fol. 57] that company during that period?

A. I went to work for them as store manager in No. 2 store, and that was in 1921, February 1921. We had at that time just the two stores, and then they put in No. 3 store and I moved from No. 2 to No. 3. That was along in 1923, I don't remember the exact month. And then when we put in No. 7 store, which was the store that we put the first slides in, when we put in No. 7 in 1929, I went out there as store manager. I opened up that store in 1929 and I stayed there until about the latter part of 1930. And then I went on supervision and have been on supervision ever since.

Q. This No. 7 store, Mr. Turnham, how large a store was that?

A. Well, it is approximately twenty thousand square feet; it is approximately one hundred by two hundred. It is one hundred thirty-six on one side and two hundred thirty-six on one side, and the other side is less than two hundred, in other words it is a triangle at one end of it, but it is approximately twenty thousand square feet of space.

Q. I hand you a photograph and ask you to identify it, please.

(Plaintiffs' Exhibit 19 marked.)

Mr. Beaman: This photograph, for the purposes of identification, has been marked as Plaintiffs' Exhibit 19.

A. I might explain that that photograph shows only the grocery department. That shows just about twenty-five

per cent of the building, but that is the No. 7 store, the store that we have in question.

Q. And is that the store that was constructed in 1929?

A. Yes.

Q. Will you describe what is shown in the middle right-hand portion of that photograph?

A. Well, it is a battery of checking counters.

Q. And how many counters?

A. Four.

Q. And were those counters in that store that was constructed in 1929?

A. Well, they probably were constructed the latter part [fol. 58] of 1928. We got them ready before we installed them, somewhere around the first of 1929.

Q. Mr. Turnham, can you give us any idea of the amount of business that that grocery department was doing in 1929?

A. Well, I would say, I haven't any figures with me on that, but I would say, as near as I can remember, probably two hundred fifty thousand dollars a year volume.

Q. What do you call these various stores that Mr. Weingarten operates in Houston, what name do you apply to them?

A. What do we call them?

Q. Yes.

A. Weingarten's Markets. We never really adopted the super market end of our advertising. We have had super market stores ever since we started operating, as far as falling in that class, but we have never played up the super market advertising to any big extent.

Q. How many markets does Mr. Weingarten operate up to the present time?

A. We have twenty in operation, and twenty-one will be in a few weeks.

Q. Is this No. 7 store still being operated?

A. Oh, yes.

The Court: Just operate in Texas?

A. Beg pardon?

The Court: Any place besides Texas? Is he out of Texas?

A. Yes, sir.

The Court: Just in Texas?

A. In Houston, Texas.

The Court: You mean he has twenty stores in Houston, Texas?

A. Actually we have twenty-one stores, Judge, nineteen of them in Houston and two of them still in the same County, but they are in a suburb.

By Mr. Beaman:

Q. How do these other stores compare with the No. 7 store you have testified to in size?

A. Well, you mean—clarify that question.

Q. I mean the amount of floor space.

A. In our other stores?

Q. Yes, sir, as compared with No. 7.

[fol. 59] A. Well, we have some that are slightly larger than No. 7, and we have some slightly smaller. There are a lot of things enter into building a market. You have a piece of ground you have to fit a building to and you can't conform to any pattern.

Q. Mr. Turnham, throughout the country there are stores now known as super markets. Can you make a comparison between these so-called super markets as to size and the stores Mr. Weingarten is operating?

A. Well, I only know what I see. I see stores with as little as sixty-five hundred or seventy-five hundred square feet in them with a big sign "Super Market," that is all I know.

The Court: What makes it a super market, do you know?

A. What makes it a super market?

The Court: Yes.

A. As I understand, when the word "Super Market" came out, it meant a large store, and a completely departmentized store, in other words, carrying everything in the food line, meats, delicatessen and so forth and so on, be a full line of whatever there was in the food business.

The Court: Did serve yourself have anything to do with it?

A. Not necessarily. I believe in a majority of cases they do have the self-serve, but I don't believe that in the definition of a super market there was anything really understood about the self-service part of it.

Q. Of these stores that you refer to, some twenty-one in number, how many of those stores are self-serving stores?

A. There is self-service departments in all of them.

The Court: What did he say?

Mr. Beaman: There are self-service departments in all of them.

A. See, we operate off of a lobby and we have service departments in the lobby, such as a drug department, or tobacco stand, or lunch counter, or any number of departments that are in the lobby, and, as in the case of this No. [fol. 60] 7 store, the only thing we have self-serving there is the grocery in that particular set-up. We have a vegetable self-serving but it is under another set-up with a separate set of checking counters.

The Court: You have a drug store there, too?

A. Yes, sir.

Q. Mr. Turnham, you mentioned something about pushing counters in this No. 7 store. Do you have reference to the construction shown in your patent?

A. Yes, sir. That is the store we worked out the experiment in.

The Court: Is this picture in evidence?

Mr. Beaman: Pardon me, your Honor, I would like to offer it in evidence.

The Court: Have you seen it?

Mr. Glaccum: Not closely.

The Court: What is the purpose of putting that in?

Mr. Beaman: Your Honor, the point has been raised here as to when these super markets came in use, and I am trying to develop by this witness and several others that these super markets or their equivalent, have been with us for many years prior to this patent, at the time it was developed, to show that the need did not just arise for something to handle a large volume of grocery business.

Mr. Glaccum: As offered, I will object to that exhibit on the ground there is no proof of the date when it was taken.

The Court: I think he testified.

Mr. Glaccum: Testified when the store was opened, but not when the photograph was taken.

The Court: When was the picture taken?

A. Picture was taken in the first part of 1930.

The Court: Well, you haven't any pushers on here.

A. No, sir. They weren't developed at that time. That was before the pushers developed, but that is the store.

[fol. 61] The Court: This was a serve yourself, wasn't it?

A. That is right, that is a self-service. That is the store we worked at. I mean the first pusher was put in later on.

The Court: And that was in 1937, somewhere in there?

By Mr. Beaman:

Q. My last question, Mr. Turnham, was for you to describe the circumstances surrounding the development of the device shown in your patent here in suit.

A. Well, the store manager in No. 7 store, along in the first part of 1937, every time I went in the store he wanted to know when he was going to get another checking counter. In other words, he had four checking counters in there and his business was just about all they could handle, and particularly in those days, in that particular locality there was a week end pay roll and it made Friday afternoons and Saturdays terrifically heavy business.

Q. Would you speak a little louder, please?

A. You want me to repeat that part of it?

Q. No, just go on.

A. Well, when Mr. Sobotik was store manager he kept on about this checking counter proposition. I told him I couldn't put any counters in there because I didn't have at that time any place to put them without making a major remodeling job out of it. And through that, and the fact every time I saw him he was griping for another counter, I got to thinking about this pusher proposition. Well, I didn't think of the pusher right at that time, but I worried around with different checking counters, and trying my best to figure out something that would expedite the customer through the counter, and along in June, I believe it was 1937, Mr. Weingarten called me up and said, "Give Adolph some relief over there; he told me you won't do anything for him." I told Mr. Weingarten then I was working on something that I thought would improve the checking situation. So he told me to do something about it if I had to get another counter in there; if I couldn't do otherwise to do that. So I immediately got the one I was work-

[fol. 62] ing on and put it on the one counter, and we worked it for several days, and then we immediately equipped the other four counters, the other three counters with the slide, and the slides are there yet.

Q. Mr. Turnham, what did you actually do? You say you equipped these counters, what did you actually do to equip them?

A. Well, we had a counter approximately the same as his counter here.

Q. Referring to Exhibit 13.

A. I took and put a pair of hinges on here and made me an extension which was about the same width as the tray.

Mr. Beaman: Just a moment, the witness is referring to the end of Exhibit 13, at which the cash register is indicated. Go ahead

A. This board on this first one was approximately the width of the counter but thirty-six inches long, butting in on this end and fastened with two strap hinges, because, frankly, I had the idea when I put it on there that we would only use it on peak loads, and when we didn't have peak loads I was going to pull it down out of the way. And I had just a standard across the bottom of this counter from this thing here. That made that standard set back in this way to support that shelf on the same level as the counter. And I put my track on it and I broke the track at that point too so I could let it down if need be. And that about all that I know.

Q. What went on this track and extension, Mr. Turnham?

A. Well, we placed the track on the counter. This one as put in as specified in our patent. They had a track on each side there, and the slide itself in turn was shaped as to fit in that track.

Q. This slide you refer to, what was the construction that?

A. Well, it was aluminum.

Q. What was its shape?

A. Well, the slide on one side was U-shaped slide, and the one on the other side—I mean, the U-shaped slide laid on its side; the one on the other side was a U-shaped piece of metal fastened to the side of the counter so that it formed a groove.

Vol. 63] Q. What operated in this slide?

A. This U-shaped device which we called a pusher.

Q. I hand you a model here that has been identified as Plaintiffs' Exhibit 16 and ask you if that is representative of what is shown in your patent here in suit?

A. Yes, sir.

Q. Now, having reference to Exhibit 16, will you make a comparison, if you can, between that and what you originally installed in this No. 7 store?

A. I have to stand up to do it. This part here which represents part of the counter——

Q. At which end of the checking stand?

A. That is at the receiving stand as you come into the checking counter, this end on the first original counter. Naturally this was just shelving here, that held all this stuff here. There was no substructure under there at all, there was just a couple legs come back there that braced it up. As I said, at first we had an idea we didn't want this solid. When the business wasn't too good, why, we dropped this end down and wouldn't use it at all.

Q. What happened to this first installation you made, what were the results from it?

A. Well, of course, the results were immediate. I mean, we didn't get into it any at all until we could see that it was expediting our getting our customers through the stands. We made test after test back in those days, there weren't any records made of them, but we made test after test on the sales of these counters against other stores of equal volume, and these counters were taking in anywhere from thirty to thirty-eight per cent more volume.

Q. This first installation in No. 7 store, were there other installations made in that same store?

A. Yes. We went on and equipped all four counters, yes.

Q. And when were they put in in reference to the first installation?

A. Right immediately. It was less than thirty days between the time the first one was put on and all four were equipped.

Q. Were there any other stores equipped with these devices?

A. Any other of our stores?

[fol. 64] Q. Yes.

A. All of them were equipped as fast as we could get the equipment ready and put on.

Q. Over what period of time?

A. Well, I would say they were all equipped in less than six months, that is all the stores that we had at that time.

Q. Referring now to this No. 7 store, Mr. Turnham, what were some of the problems that you had with the checking counter before you modified it?

A. Well, of course, there were a lot of problems with the checking counter. Of course, the main problem was that when you got up to the checking counter with a basket full of merchandise, a heavy basket full of merchandise, and they had to roll it up to the counter, and a checker had to reach clean over the counter and lift that heavy basket up on top, then if you happened to have a heavy basket on the bottom, why, either that checker had to leave his station and go clean around to take that basket out, if it was for a lady, or somebody that couldn't handle it, if not he had to ring for a porter to come and do it. In fact, in those days we kept porters on the back end of the counter to put those baskets up, especially through the peak period.

Q. When you first installed these pushers on your counters in No. 7 store, how did you manage the counter, what was the system for getting the people through it after this device had been installed?

A. Well, to start with, I thought, and I say I thought, we all thought that to make this thing work right we would have to have a boy take this stuff out of the baskets and put it on the counters, or in the pushers, so that was the procedure we used. And when we finally saw that as we went along the customer got to putting the stuff up there herself. If the boy didn't get to her in time, she already had it up there. Then we cut down on pusher boys, on four counters we had two, with week days we didn't have any. Friday afternoons and Saturdays we had two only. Of course, they performed two functions then, they kept those baskets emptied into the pusher and then they kept the empty baskets back in the receiving line.

[fol. 65] Q. Who pushes that pusher, if you want to call it that, from its rear position up to a point adjacent to the cash register?

A. When this thing started off, we thought it had to be pushed, naturally, that is why, I say, we had the pusher there to push it. But we soon found out by putting a little handle or notch on the end of it there that the checker could pull it up herself. And we now have in operation in our stores pushers on roller bearing wheels and they are counter-

balanced with a little weight. When they come up, when they are turned loose after they are pulled up to the checker, when they are turned loose she goes back into position.

Q. That is, you have a weight to return the pusher after it has delivered the groceries up to a point adjacent to the cash register?

A. That is right.

Q. Do you recall when you put the knobs on the pusher?

A. No, sir, I don't.

The Court: What does he mean by that, that this comes up here like this and automatically runs back, is that it?

A. Yes.

The Court: You have ball bearings on there?

A. Have a chain from here to here, and a counterweight we have on the back end of it from here to this.

The Court: From the back end of the counter to the back end of the pusher, and there is a weight at the end of the chain at the end of the counter and that pulls, automatically pulls the pusher back into place, isn't that right?

Q. Mr. Turnham, where is this knob that you have reference to, where is this knob?

A. It was right on here, on the left.

Q. Was it directly adjacent to the cash register?

A. Yes, that is right.

Q. On the open end of the pusher. Can you give any approximate time when that knob was put on there?

A. I would say it was within a year, twelve months after we had the pusher installed.

[fol. 66] The Court: That would be before 1940?

A. Yes, sir.

Q. Mr. Turnham, did you conduct recently some tests, at my request, relative to the amount of persons and goods that might be passed through one counter as compared to another, one equipped with a pusher and one without it?

A. Yes, sir, I have. I have a test that was made on two registers, two checking counters side by side, and I want to say that we lifted the pusher off of one counter. Naturally, we couldn't go back to the old counter type without the pusher, so you had a little advantage there in favor of the

counter that had no pusher by the fact that a lot of people, just by taking this off, you could knock them down, but you couldn't keep them from bringing the stuff and laying it on that counter, which was almost equivalent if you had the pusher.

Q. You took the pusher off the counter but had to leave the extension, is that correct?

A. Yes, that is right. I couldn't get away from that, and that really is in favor of the counter. In other words, we could take more merchandise on that on account of the fact that they used it for a pusher anyhow, some customers did, you couldn't keep them from it.

Q. Go on with the results of your tests and just how it was conducted, please.

A. I took two registers side by side there, and I used the same two girls through the six-day period, and on alternate days I alternated taking the pusher off. I took it off one counter one day and off the other counter the next day. I did that in order to eliminate any possibility that somebody might say, "Well, you put a real speedy checker on one counter and real slow one on the other." But we used the same two girls all the way through, one day without the pusher and the next day with it.

Q. Did these two girls you refer to stay with the same counter throughout the tests?

A. That is right.

Q. They didn't alternate back and forth?

A. No. I just alternated taking the pusher off.

[fol. 67] Q. What hour of the day was this test run?

A. It was run from four fifteen to five fifteen.

Q. Is that your normal rush period?

A. Well, it is a good period where it is fairly steady business. Now, you want me to give you——

Q. I would like to get the results of those days, day by day, and indicating whether the pusher was being used or not in reference to your figures.

A. I started the test——

Mr. Glaccum: I would like the record to show the witness is reading.

A. Beg pardon?

Mr. Glaccum: Are you reading from a notebook?

A. Yes, sir.

The Court: You made the notes yourself, didn't you?

Mr. Beaman: The witness is testifying from his notes, as I take it.

The Court: From his own notes?

Mr. Beaman: Yes.

A. Yes.

The Court: All right.

A. On Thursday, the 30th of January, was the first day of this test. On the register without the pusher we had in that hour's period $113.10. On the register with the pusher we had $159.57. That was an increase of approximately 41 per cent.

On the next day, the 31st, on the register with the pusher, which was the one that was without the pusher yesterday, we had $171.28, and the girl without the pusher had $139.84. These are supported by register readings attached. That is only an increase of 22 per cent.

On the following day, we had without the pusher $153.40 and with the pusher $210.77. That is approximately 37 per cent; that was on a Saturday.

The Court: On what?

A. That was on Saturday.

[Vol. 68] The Court: I see.

A. On Monday, the 3rd, we had with the pusher $161.66, and on the one without the pusher we had $120.55, which was an average increase of 34 per cent, and increase rather of 34 per cent.

On February 4, we had without the pusher $102.66, with the pusher $134.67, approximately 31 per cent increase.

On Wednesday, the 6th day, we had with the pusher $121.82 and without the pusher $92.25, an increase of 32 per cent.

Now, on the recap over the six-day period it shows an increase of $237.98, or 32.9 increase.

Q. Mr. Turnham, during the time this test was being conducted, were the aisles full of people, I mean, what was the condition of your crowd?

A. Well, you know, to tell you that you are going to have a house full of people, you can't. You plan a demonstration for what you think is your busiest period. Under normal conditions, if things work out all right, yes, you would

be those hours in my store. That is the reason I picked them because I would have a good crowd and have practically all the checking counters running.

Q. Were people lined up in each counter during the period of that test?

A. Yes, sir; that is right; that is one or two deep, not any long lines, but one or two.

Q. Mr. Turnham, have you made any other improvements in handling of merchandise that the Weingarten Company have adopted?

A. Well, yes, I think I can say without doubt that I designed and built the first basket carrier that was ever put in a store.

Q. What do you mean by "basket carrier"?

A. I mean just what I imply, it is a carrier built to carry your basket, and the first one I built I tore up a baby buggy trying to make one, and finally got it to where it worked pretty good but it didn't suit me. So then I built one after that, just a box that would fit the bottom of the basket and it was up high enough where you could walk comfortably—and remember in those days we had old splint baskets [fol. 69] with a handle on them, we didn't have any of these steel wire baskets.

Q. When was this period you developed this?

A. This was the early part of 1928, I guess, 1928, 1929, along in there. But anyhow I built a box that the basket fit in, and it had four legs on it, and it was on four casters. I used just ordinary bed casters, you might say that type of caster, and we just took the box and set the basket down, and walk along and lead that basket along to load the groceries.

Q. Are similar devices being used in your stores now?

A. Well, they are not being used now, no, that particular type isn't, because right behind that we came in and built a double-deck carrier which would compare favorably with the present-day carriers, except that I wasn't a good enough engineer to know how to build one that would fold up. I built it rigid.

Q. Mr. Turnham, in addition to this percentage of increase here of sales through your checking counter, are there any other advantages that you can attribute to this development disclosed in your patent here in suit?

A. I don't understand that question.

Q. I have reference to saving of space and that sort of thing in your stores.

A. Well, of course, I think that every super market operator realizes that space is a very valuable thing. The space it takes to put a checking counter in, plus the room it takes behind it, and room it takes in front of it, is one hundred to one hundred twenty-five square feet of space. In modern day merchandise operation one hundred twenty-five, or even one hundred square feet of space is plenty. If a man can get by with checking and give the customer all the service they need on three counters, he isn't going to put in four. He is just throwing away good merchandising space when he does it. Does that answer your question?

Q. That is what I have reference to, is saving of space.

The Court: If he enlarges the counter, he doesn't save much space. How long is that addition on that counter? [fol. 70] A. This full counter in our operation is ten feet long.

The Court: The whole thing?

A. Yes, sir.

The Court: How much is the addition?

A. The addition is two and a half feet.

Q. Mr. Turnham, what space did you have reference to that you were saving?

A. You see, in a checking counter set-up you have space behind that counter that you have to leave open for free access. You have space at the front of the counter. For instance, if you cut off a checking counter you have a lobby department out here. It might make all the difference in the world if you can move over seven feet more and not interfere with this outgoing operation.

Q. Do I understand the space you are talking about saving is space you save by not having to put another checking counter in?

A. That is right, the floor space.

The Court: Of course, that is not all saving, because you have to extend the old counter a little bit, but there is a considerable saving.

Q. Mr. Turnham, did you have competitors in Houston in the super market business?

A. Yes, sir; I will say we did.

Q. Were you acquainted with them?

A. Yes, sir. I was acquainted with all of them, too well acquainted sometimes.

Q. Were these competitors ever in your store?

A. Well, now, when you mean competitors, you mean the men that represent certain different companies, and so forth, and so on. Mr. Sutherland with Henke & Pillot, visited our stores frequently. In fact, all the competitors in Houston intermingle with each other at all times. I mean by that on a Saturday afternoon you may see two or three different competitors in one car going around visiting stores. And I would say Mr. McClenny with the A B C Market, Sutherland with Henke & Pilot, Mr. Lyle with A & P, Mr. Terry, before Mr. Lyle, particularly was a [fol. 71] Weingarten visitor. I wouldn't say that there was any sneaking around, but they just visited around. If Mr. Weingarten felt like going over and looking over a Henke store, he went and looked it over.

Q. Back in this period of 1937 and 1938, did that practice exist then?

A. Yes, sir.

Q. Did you know a Roy A. Buchoz?

A. Yes, sir; I did.

Q. Who was he connected with?

A. Well, when I first met him he was connected with Burroughs Adding Machine people.

Q. Do you recall any interest Mr. Buchoz showed in this counter pusher development?

A. Yes, sir. Mr. Wilson was local agent in our town for Burroughs Adding Machines, and they came out with a register, and——

Mr. Court: Came out with whom?

Mr. Beaman: Register, I think he said.

A. With a register, a cash register. They were in the adding machine business prior to that, but they came out with a cash register. That cash register was so fast, as compared with National's, I really thought it was a proposition and the answer. It still is a good register in some instances. But I went to talking with Mr. Wilson and, of course, the thing was brand new, he didn't know too much about it, so he wired Mr. Buchoz to come down there from the factory, and that is where I met Shorty Buchoz.

Q. Did you give him permission to take any pictures, that you recall?

The Court: Is that the man that was on the stand this morning?

Mr. Beaman: No, your Honor. Mr. Buchoz was a witness in Grand Rapids, and we took depositions there, I guess, last week.

The Court: I see.

(Last question read.)

A. Yes. I didn't really give him any permission. I think we were friendly enough by that time to know that [fol. 72] it would have been all right, but he did call me up and ask me if it would be all right to take some pictures in some of the stores, and I told him it would.

Q. What was he taking pictures of?

A. Well, he was taking pictures primarily of the adding machine, I mean this Burroughs cash register in conjunction with a new type pusher counter.

Q. Did he ever relate to you what he was going to do with those photographs?

A. Well, he told me he wanted to furnish them for his catalogs for all of his salesmen.

The Court: Who was he connected with?

A. He was general sales manager for Burroughs.

The Court: Oh, I see.

Mr. Beaman: Your Honor, in the deposition Mr. Buchoz gave he testified he was in sales promotion and traveled the entire United States, and that he did have these pictures in his portfolio and showed them around in different parts of the country.

(Plaintiffs' Exhibit 20 marked.)

Q. I hand you Paintiffs' Exhibit 20, which has been stipulated in this case is a publication of the Department of Commerce, known as "Domestic Commerce," and ask you if you are familiar with the disclosure on pages 79 and 80 of this publication?

A. Yes. I received and read this——

Mr. Glaccum: Speak a little louder, please.

A. I said I had received and read this article before, prior to this time.

Q. What does that article relate to?

A. Well, it relates to a slide on the checking counter, in other words a merchandise handler, as I would call it.

Q. Now, I call your attention to the January, 1942, issue of the "Super Market Merchandising Magazine," Plaintiffs' Exhibit 1, and ask you if you have read this article appearing on pages 24, 25 and 26?

A. Yes, sir.

[fol. 73] Q. And what does it relate to?

A. Well, it relates to the growth and expansion, or I would say improvement of checking counters throughout the period of time.

Q. Is there any disclosure in there of your construction?

A. Yes, sir. There is one here that is almost identically like my original construction, that is where this bench is built on the back there.

The Court: What magazine is that?

Mr. Beaman: "Super Market Merchandising," this is the January, 1942, issue, your Honor.

By Mr. Beaman:

Q. Is that the type construction that you installed originally in Store No. 7?

A. Yes, except I had straight braces under there instead of hinged braces like he has here. That breaks in the middle, but other than that it is the same construction.

Q. Mr. Turnham, when did you first see this article in this January, 1942, publication?

A. I read it when it came out. I received this magazine regularly every month; I read it from month to month.

Q. To whom does this magazine go out, do you know?

A. It goes out to all members of the super market industry. I believe I am right on that.

Mr. Beaman: I would like to offer in evidence this January, 1942, issue of the "Super Market Institute."

Mr. Glaccum: Do you want to offer the whole magazine, or just the pages in question?

Mr. Beaman: I think it might be better to restrict that to pages 24, 25 and 26.

The Court: Any objection?

Mr. Glaccum: No.

The Court: It may be received.

What was this other?

Mr. Beaman: This other magazine is the January, 1947, issue of "Domestic Commerce."

The Court: Who gets it out?

Mr. Beaman: The Department of Commerce, your Honor.

[fol. 74] The Court: That is an official document?

Mr. Beaman: It is an official publication of the Department of Commerce.

The Court: All right.

Mr. Glaccum: What pages are you offering?

Mr. Beaman: I would like to offer in evidence pages 78, 79 and 80.

Your Honor, in connection with the testimony of Mr. Turnham on this matter, he took a film that will require maybe ten or fifteen minutes to show that shows merely two counters in actual operation, one equipped with a pusher and the other without it. During the photographing of this test, the photographer was located behind some screen. It is something we couldn't put in evidence, but if your Honor would like to view it——

Mr. Glaccum: It can't go in the record.

Mr. Beaman: No, it can't go in the record very well, but if your Honor would like to view it, just as a matter of information, and for what it shows, we would be very glad to show it.

The Court: All right; you don't want it right now?

Mr. Beaman: I am through with Mr. Turnham and he could probably comment on what is being shown there.

The Court: I think we might as well take a look at it.

Mr. Beaman: I would like to show them.

Mr. Glaccum: I don't know under what circumstances they were taken. How much of it is going into the record?

Mr. Beaman: Mr. Turnham will testify as to the making of this test.

The Court: I have seen the public go through. I think I know what they look like but there might be something you can point out that doesn't come to my mind right now.

[fol. 75] Mr. Beaman: I would like to show them if you don't mind.

The Court: I think I will take a look at them.

Mr. Beaman: Thank you very much.

(A motion picture film is displayed, showing the operation of two counters, one with a pusher device and the other without.)

Mr. Beaman: I don't know whether I have introduced this Exhibit 16 in evidence or not.

The Court: Yes, I think you have.

Mr. Beaman: But I would like to if I haven't.

The Court: If you haven't it may be introduced now.

Any cross examination?

Mr. Glaccum: Yes, your Honor.

Cross-examination.

By Mr. Glaccum:

Q. You referred to this article in the magazine "Super Market," which appeared in January, 1942. Is that article inspired by you?

A. No, it wasn't.

Q. It was written by the magazine as an article to aid their readers in setting up their stores; is that right?

A. Yes.

Q. I also call your attention to this article in "Domestic Commerce," for January, 1947, more particularly to the start of the article which reads as follows: "Retailer C was a successful grocer in a suburban community in an eastern city of about a million people." Would you know who that refers to?

A. No, sir; I would not.

Q. But it would not refer to your concern?

A. No, sir.

Q. On these tests which you ran, how many customers went through each day, if you know?

A. Yes, sir. I have it here.

Q. It would be the number of customers handled, the number of transactions handled rather than the dollar value that would be important, would it not?

[fol. 76] A. Yes, sir. They tie in together very good, though. I am sorry I didn't anticipate your asking me that so I didn't have it already taken down, but here is, for instance, on this test here, the one with the pusher had three hundred twenty-one customers and the one without the pusher three hundred thirty-three; and on this one without

the pusher three hundred eighty-eight and with the pusher three hundred eighty-nine.

The Court: Wait a minute; you handled as many customers at one place as you did the other then?

A. On this particular one without the pusher, had two hundred eighty-eight customers, and with the pusher they handled three hundred twenty-two. And on this one there was a difference of, with the pusher—I have to subtract one from the other.

Q. I am sorry, I didn't get that.

A. Without the pusher was a difference of ninety-nine, and with the pusher there was a difference of one hundred seventeen.

Q. So that the day, January 30, when you ran this first test, the check stand without the pusher handled three hundred thirty-three customers for one hundred thirteen dollars, while the check stand with the pusher handled three hundred twenty-one customers for one hundred fifty-nine dollars sixty-seven cents. Now, on the third of February, your figures showed that the stand without the pusher did one hundred two dollars sixty-six cents, while the other stand one hundred thirty-four dollars and sixty-seven cents, yet on the first of February, the stand without the pusher did——

A. Pardon me. See here——

Mr. Beaman: Let's get this in the record.

A. What I was trying to get over to him, those figures I gave him there—in other words, you see this is the beginning——

The Court: Better take a recess for fifteen minutes here.

(Recess.)

[fol. 77] By Mr. Glaccum:

Q. According to your figures, Mr. Turnham, on February 1st, the counter without the pusher handled $153.40, correct?

A. Yes, sir.

Q. While on the 3rd of February, at the same counter, or at least the counter without the pusher, handled only

$102.66. Is there any reason why it could not have handled the 153 on the 3rd that it handled on the 1st?

A. Is there any reason why it couldn't handle more than that?

Q. Yes.

A. I can't grasp any reason why except just through the slower operation, that is all.

Q. Well, you have the same counter theoretically, at least you have a counter without a pusher in both instances, and one day that counter handled $153.40; two days later the same counter only handled $102.66.

The Court: With the pusher?

Mr. Glaccum: Both times without the pusher.

Q. That would be controlled, would it not, by the number of customers that were waiting to be handled?

A. Yes, sir; that is right.

The Court: Wouldn't it also be controlled by the amount of the purchase and number of articles?

Mr. Glaccum: That would be true, too.

Q. But according to the figures that you just checked, the counter without the pusher handled 79 customers on February 1st, right?

A. Yes, sir.

Q. Whereas on February 5th, it only handled 50 customers?

A. Yes, sir.

Q. So it would depend, would it not, on the number of customers waiting to go through?

A. That is true to a certain extent. However, you will find the same variation, you will find the same variation in customers in the one with the pusher, too. I don't exactly get what you are driving at because you have naturally a flow of customers through your checking counter only as [fol. 78] fast as they come to you, and some days they come fast and furious, other days they come slow.

Q. So the number or amount of the transaction here in any one day isn't necessarily the maximum amount that could have been handled that day?

A. Oh, no, sir, in neither case.

Q. Now, as a matter of fact, you get your customers educated to the idea of your pusher, do you not?

A. Yes, sir.

Q. And wouldn't it be a perfectly normal thing for a customer that has been so educated, seeing one counter without the pusher and one with the pusher, to go to the one that has the pusher?

A. Yes, it would. But that was the biggest trouble we had with this test, the customer would go up there and put their stuff on there the same as if the pusher was there. We had very little friction about that part of it. I just had to keep a boy there to set the baskets upon the counter for them because otherwise they would unload them even if the pusher was not on there.

Q. In this test that the pusher wasn't used, you put the basket upon the counter?

A. Yes, just like we did in the old days.

Q. The girl instead of just having to reach out and pull the stuff back, had to lift it out of the basket?

A. That is right.

Q. Where you had the pusher, she just pulled it back to her?

A. Yes.

Q. If she hadn't used the pusher but just reached up and pulled the stuff back with her arm, do you think the results would have been the same?

A. Yes. But you can't reach up there and pull stuff back with your arm.

Q. Isn't the principal advantage of your system in that you get the customer working for you and he puts his merchandise right on the counter instead of leaving it in the basket?

A. Well, if you want to draw a line that fine, I will say [fol. 79] you have the customers working for you when he comes in, walks around and picks stuff off the shelves.

Q. That is right. That is why a self-service store can operate.

A. So where you draw the line if you can make the customer do more, the customer is working for you, that goes without saying.

Q. When he takes his merchandise out of his basket and cart and places it upon the counter, that is a big advantage, is it not?

A. Yes, sir, it certainly is.

Q. And he is in effect working for you there?

A. Yes, sir.

Q. Isn't that where most of the time is saved?

A. Yes, sir. Naturally, the time is saved if you have a checking counter here where a basket has got to stand there and not a soul touch it until this checker here finishes the checking operation before he can even get it on the counter, well, naturally it is a lot slower operation than this operation where while you are working, the checker is working on this customer here, the other customer following him already has his merchandise placed in here to be pulled in place to be checked immediately following the completion of the last sale.

The Court: He asked you if time wasn't saved in checking out the items. Isn't that what you asked him?

Mr. Glaccum: That is right, and putting it on the counter rather than having to leave it in the basket.

The Court: I thought you meant in the serve-yourself cart.

Mr. Glaccum: I meant when the customer walks up to the checker stand at present, with the pusher arrangement or a little longer stand, the time is saved because the customer takes those items out of the basket and places them right upon the counter.

The Court: And he hasn't room where there isn't the extension.

[fol. 80] A. That is right.

Q. My question really is, isn't time saved because of that operation rather than the case in which the material is pulled back to the checker?

A. Well, it stands to reason with an extension of thirty-six inches, and you are reaching around a register, I don't believe there is a contortionist in the world could go around that thing that way and get that merchandise and pull it up with his hand.

The Court: He would have to have a pretty long arm, too.

A. Sure would.

Q. If the cash register were differently placed so he could step up there, he would be able to do it, would he not?

A. I don't know where you would place it.

Q. But in any event, in the tests that you ran, you did not allow the customers to place the merchandise on the checkout counter, but kept it in the basket?

A. That is right, as much as we could. Some of them got up there anyway, but as much as we could, that is what we tried to do.

Q. You testified before, Store No. 7, Weingarten's store was opened in 1929?

A. Yes, sir.

Q. That is the store shown in Exhibit 19?

A. Yes, sir.

Q. Just where did you place the checkout counter in that store?

A. To begin with, there was quite a remodeling job out there before this. You see, there were several years between the time this picture was made and the present time, but all this space in here where this counter and stuff is was later taken up with a delicatessen department, or part of it a delicatessen department up to this entrance here. Then these counters were turned around just in the opposite direction. In other words, instead of running sideways to the department, they run just in the opposite direction.

Q. Then the picture isn't representative of the store as [fol. 81] it is today?

A. No, sir. The picture doesn't represent the store as it is today at all.

Q. Were you manager of Store No. 7?

A. I opened that store; yes, sir.

Q. In 1929?

A. 1929

Q. And was that at that time a self-service store?

A. Grocery only.

Q. Grocery?

A. Just groceries.

Q. And how long were you manager of that store?

A. I believe I left there about the latter part of 1931. It was some time in 1931, I couldn't tell you just exactly when.

Q. And thereafter you were in a supervisory capacity?

A. Yes.

Q. Now, just when did you install these pushers in that Store No. 7?

A. Well, I installed the first one in July.

Q. Of what year?

A. 1937.

Q. Do you know Mr. Buchoz?

A. Buchoz; yes, sir.

Q. Do you know he was called as a witness in this case and his deposition taken?

A. Yes, sir.

Q. Do you realize that he testified that you showed him these counters in operation in the early thirties?

A. Yes, sir. I read the deposition.

Q. As a matter of fact, he testified as follows:——

"I am very sorry, Mr. Beaman, I wouldn't know. Mr. Turnham knows when he put that in the store, and he could give you the exact date, if that means anything; but I would say—this is 1947—I would say 1932 or 1933—wait a minute. Well, it was some time in the early thirties."

Do you agree with that testimony?

A. I don't agree with the dates at all. I know the dates are not correct. The man is evidently relying on his memory, and his memory, insofar as the dates were concerned, wasn't too good.

Q. Now, you know that Mr. Buchoz took a photograph [fol. 82] of your installation and showed it to his customers and suggested they write you for information; is that correct?

A. Yes, sir.

Q. Did you receive any such request for information?

A. We received a few from time to time, but we weren't in a position at that time to market them. That was prior to the time that we actually got the patent, most of those came in.

Q. Do you know whether or not the A & P Stores in Houston use a structure of this type?

A. No, sir, they do not, to my knowledge. They haven't one in the State of Texas.

Q. So that if Mr. Terry or Mr. Lyle had observed your operation, in any event they didn't copy it?

Mr. Beaman: I beg pardon; I did not get that.

Q. Did you testify further that a Mr. Terry and Mr. Lyle of the Tea Company——

A. Mr. Terry, it was. Of course, I testified Mr. Terry visited our store, but it was prior to the time of this type of checking out counter. Mr. Lyle was superintendent down there during the time of that checking counter, and he was in the store any number of times.

Q. So if he observed these pushers in action in your stores, he didn't adopt them in any event in Texas?

A. No, sir; he didn't.

Redirect examination.

By Mr. Beaman:

Q. Mr. Turnham, on your direct examination you testified as to a six-day test that you conducted, and you gave the dollar sales for the respective counters, with and without the pusher. Have you with you any records to show the number of customers that passed through these counters during that test?

A. Yes, sir. I had them there awhile ago but they were in such condition that I couldn't rapidly get them straight.

Q. Have you now tabulated the results as far as customers are concerned?

A. Yes, sir.

[fol. 83] Q. Would you read from your tabulations, by days, and referring to whether the counters had the pusher or not, the number of customers that passed through each one?

A. On January 30, with the pusher we had 106 customers through the counter, and without we had 74.

The Court: Didn't he give this before?

Mr. Beaman: Your Honor, he tried to give these results from his sales slips and he was confused about it, and he has now straightened out his testimony.

The Court: All right.

A. On January 31, with the pusher we had 84 customers and without it we had 63.

On February 1, 94 with the pusher and 79 without.

On February 3, 111 with the pusher and 75 without.

On February 4, 89 with the pusher, 72 without.

On February 5, we had 70 with the pusher and 50 without.

Q. Have you figured the percentage over the entire test?

A. That is a total of 548 customers through the test with the pusher, against 413 through the counter without the pusher, which gives the counter with the pusher an increase in customers of 135, which is about 32.9 increase in percentage.

Q. And how does this 32.9 percentage of increase compare with the dollar sales increase?

A. It compares just about alike; in other words, it compares very favorably because on this same test on the dollars and cents sale, the percentage runs 32.97, so it is actually the same thing.

Mr. Beaman: That is all.

Mr. Glaccum: I have just a few more questions.

[fol. 84] Recross-examination.

By Mr. Glaccum:

Q. Referring again to these tests, you testified, I believe, that you used the same girls and interchanged them, the same checkers?

A. Yes, sir. I took two girls. As near as I knew, they were of about the same ability, and I didn't change them off of their regular registers, I left them on their registers, but on one day I took the pusher off of one counter and the next day I took it off of the other one. I alternated them three times, each girl had three operations with each.

Q. Of course, these girls knew a test was being made?

A. Yes, of course, to a certain extent. They didn't know that there was any test being made, any more than I told them that I was experimenting with something and I wanted it done that way.

Q. Now, did you use the same baggers?

A. I used the same two baggers on the days I used baggers. There were some of those days, there were light days that there was no baggers used.

Q. Tell me, isn't it a fact that you can take two lines of customers when traffic is heavy and they are lined up say ten deep, and have one line going in one checking counter and one line going in another, and one line will go through much quicker than the other?

A. Not if the facilities are the same. You have the same kind of girl operating, and operating the same kind of equipment, I think you would find that may' o one time one would go through a little faster and another time the other would go through a little faster.

Q. As a matter of fact, some girls are much faster in checking?

A. That is right. That is why I say, that is why I was particular to alternate those girls on that test. That is what I was trying to kill.

Q. The steady customers know the good checkers, do they not?

A. Yes, to a certain extent, they do.

Q. And go to the fast checkers to get through in a hurry?

A. I might say this: The slow checker in this particular [fol. 85] test is a checker that works the counter one hundred per cent of the time. She never gets off the counter. Every other checker has duties in the store, but she has such a nice personality and has so many friends that she is my first checker. She never does anything except check, even though she isn't as fast a checker as some of the others. She is up there mainly because she has a lot of friends; she has a million dollar personality.

Q. But you admit, would you not, that as a general rule customers that frequent the store get to know which personnel are most efficient and go to them?

A. Why, sure.

Mr. Glaccum: That is all.

Mr. Beaman: That is all, Mr. Turnham. You are all through.

Adolph Sobotik, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. What is your full name and age?

A. Adolph A. Sobotik, forty-one years old.

Q. And your residence?

A. Houston, Texas.

Q. And your occupation?

A. Occupation, J. Weingarten Stores.

The Court: You have to talk up louder than that.

A. J. Weingarten Stores.

Q. And what is the business of J. Weingarten Stores?

A. Retail groceries.

Q. How long have you been with the Weingarten Company?

A. Twenty-two years.

Q. And when did you come with them?

A. January 3, 1925.

Q. Were you in the grocery business before that time?

A. Yes, sir.

[fol. 86] Q. And who were you with?

A. Piggly Wiggly Company, San Antonio, Texas.

Q. What year was that?

A. That was 1923 and 1924.

Q. What type store was this Piggly Wiggly Store?

A. They were self-server stores.

Q. And when you came with Weingarten Company in 1925, what type store was that?

A. They were self-server stores, the grocery departments were in the self-service.

Q. How many stores did they have in 1925?

A. Three.

Q. And has that number increased?

A. Up to the present day?

Q. Yes.

A. Yes, sir.

Q. Commencing with the time that you started with Weingarten, what had been your positions with that concern?

A. I started as a stock boy, stacking the merchandise on the shelves.

Q. That was 1925?

A. Yes, sir.

Q. How long did you work at that position?

A. Then I went on the cash register up to 1928; and then I was promoted to grocery department manager.

Q. And what store were you the manager of?

A. I became grocery manager of Store No. 1 and Store No. 4.

Q. Any other stores that you have managed?

A. In the grocery department, no. Then I became store manager in 1929.

Q. Of what store?

A. Store No. 1.

Q. Were you connected with any other stores in the Weingarten chain?

A. Yes. I was in No. 1 until March, 1933, and then I was transferred to Store No. 7.

Q. I hand you Plaintiffs' Exhibit 19 and ask you of you can tell me what is shown in that picture, what store construction?

A. This is Store No. 7 when it originally opened in 1929.

Q. 1929?

A. Yes, sir.

Q. Over what period were you manager of Store No. 7?

A. March, 1933, until June 15, 1940.

Q. Did your business in Store No. 7 increase during that period?

A. Yes, sir; it has.

[fol. 87] Q. Did you run into any problems from the standpoint of handling your customers during that period?

A. Yes, I have. In 1937, about the first quarter of the year, my business was on the upgrade and I only had four checking counters in that grocery department. I had difficulty taking care of my customers and checking them out, especially on Saturdays in the peak hours. I asked Mr. Turnham, who was our supervisor, to get me additional checking counters, that I cannot take care of my business with the present equipment I have. He kind of put me off a few days, and I went up to Mr. Joe Weingarten. Then Mr. Joe Weingarten got together with Mr. Turnham, they come back to look the situation over, and Mr. Turnham said he has an idea that he can relieve the situation on the present checking counters, to give him a few more days. And that happened just about the first part of July, 1937. Then about the middle of July, 1937, Mr. Turnham came out there with one of the carpenters and put a slide similar like I saw in the Exhibit No. 13, with a little counter on the end.

Q. What do you mean by a counter?

A. It is an additional counter space, counter addition about thirty-six inches out.

Q. Would you call that an extension?

A. Extension; yes, sir.

Q. Well, what was the purpose of this extension that he put on the counter?

A. Well, it was installed in my store at the close of business on Thursday, and Friday we have operated that, what we call this pusher on the extension, and through Saturday we have discovered that that cashier on that counter took in from 30 to 33 per cent more volume in dollars and cents than the other cashiers without those pushers.

Q. Did he install one or more than one at that time?

A. Only one the first week.

Q. And how long was this one operated?

A. It operated about a couple weeks, and then about the end of the third week we put them on the other three counters.

[fol. 88] Q. At that time, that is prior to the time they put these extensions on and these pushers on your counters, how many did you have in your store?

A. Four.

Q. Were there any additional counters installed at that time?

A. No, sir.

Q. What year was it you said you left the Store No. 7?

A. June 15, 1940.

Q. And how many counters did you have at the time you left the store in 1940?

A. Four.

Q. There had been no additions made in the number of counters in Store No. 7 during that period?

A. No, sir.

Q. Have you examined the records of your company for the purpose of determining the sales during the year 1937?

A. I did, sir.

Q. 1938 and 1939?

A. Yes, sir. I have them here.

Q. And do you have the sales record for the grocery department of Store No. 7 during that period?

A. Yes, sir.

Q. Would you state what those sales were for the year 1937?

A. 1937 I have $398,783.71.

Q. And what portion of that year were these counters being used, these counter pushers being used?

A. They were used the five months of the last of 1937.

Q. And what were your sales in 1938?

A. $483,264.33.

Q. And what were your sales in 1939?

A. $561,174.70.

Q. Mr. Sobotik, how do you fix in your mind this date of 1937 when these pushers were installed in Store No. 7?

A. What do you mean, how do I arrive at the date?

Q. How do you fix it in your mind? How can you testify that that took place in 1937?

A. Well, this happened in July when they installed this counter, and this happened previously about sixty days, Mr. Weingarten was in my store and I talked to him and I have

mentioned to him the way the sales are increasing, provided I get some relief that I can handle the trade, I will have a million dollar store by 1939 or 1940. And Mr. Weingarten told me if I make the million dollar sale, he is going [fol. 89] to give me extra bonus of $250 for making it. So I went to work with additional facilities to get more business through my store. I have reached the million dollars on December 1938, the next year.

Q. Now this million dollar sales, did that include something other than the grocery counter, grocery department?

A. Yes. The grocery had 56 per cent of the total volume, the grocery department alone.

Q. How did prices of groceries compare in 1938 with the price of groceries in 1937, as far as your particular store was concerned?

A. I will say that the wholesale cost was the same, but the retail was down from four to six per cent, because we have got into a competitive spirit over there, in February, 1938, and we have met the competition, and we have cut the gross profit from four to six per cent of total volume of sales, and gained sales about 25 per cent by doing so.

Q. Were prices in your store more or less for the same item in 1938, as compared with 1937?

A. They were less in 1938 than 1937.

Q. They were less in 1938 than 1937?

A. Yes.

Q. Would that mean you would have to put more customers through your store to get the same dollar volume?

A. Yes, sir.

Q. And how did the prices in your store in 1939 compare with 1937?

A. They were slightly lower in 1939 than 1937, probably about two to three per cent in 1939 than 1937.

The Court: When did they start to go up?

A. About 1941 and 1942.

The Court: They haven't stopped yet, have they?

A. Not yet.

Q. Mr. Sobotik, was there any reason for your prices coming down any, being lower in 1938 or 1939?

A. Yes, they were. The A & P, the Great Atlantic & Pacific Tea Company opened up what they called warehouse stores. It happened on Saturday morning, and J. Wein- [fol. 90] garten Company on Sunday morning, we got

down there and we met them on all the prices, and put a double page ad in all the Houston papers that we are selling merchandise Monday morning at wholesale prices.

Q. What year was that?

A. That was February, 1938.

Q. Mr. Sobotik, have you ever observed any of your competitors in your store at any time?

A. Yes. I have met a lot of visitors from different other chain stores, and so forth, come around the store and come through the store and look our stores over.

Q. In this period from 1937 to 1940, while you were manager of Store No. 7, can you recall the names of any competitive stores, the names of persons of competitive stores that were in your store?

A. Yes, I can. I made a little memorandum of a few of them. I overlooked quite a few of them. There was, for instance, Mr. Bovar, supervisor for Furr Food Market, Lubback, Texas; and Mr. Al Becker, President, Handy Any Store, San Antonio, Texas; Mr. Pat McClenny, President of A B C Store, Houston, Texas; and Mr. Howard E. Butts, President, Piggly Wiggly Corporation, Corpus Christi, Texas, and H E B Stores, San Antonio, Texas, the President of H E B, San Antonio, Texas.

The Court: What is the significance of that? You went in their stores, too, didn't you?

A. Yes. When we were in that city, yes.

The Court: Sure.

Mr. Beaman: Your Honor, the only point is this: That we think we can show by our other testimony of several witnesses, and these publications, that this device became known to the entire trade over this period, and that the development originated at Houston and became known without the usual form of advertising and sales promotion, and was adopted and appropriated by other concerns, and our purpose is to show——

The Court: That is the inference that these people came [fol. 91] into the store to look at this particular rig, or did they just come into the store to look for anything?

Mr. Beaman: It apparently is the practice among the whole super market industry to go around and examine each other's stores and to adopt anything that looks like it was an improvement on what they are using. And Mr. Weingarten will testify on those various points. They

have an institute, and they have quite an organization, and we think it is important to show that this small change in Houston, Texas, over a period of a few years, assisted by Mr. Buchoz, this Burroughs Adding Machine man, and other people, was relayed and transferred back to the East, West, and to the North, but that is the reason for the adoption of it, and not for any other reason that the defendant might set forth here.

The Court: Is there any question, but what this is a good rig that does do all these things. The A & P doesn't question that, they only say it isn't patentable, that is all.

Mr. Beaman: That is right, your Honor, they question the validity of the patent.

The Court: They put it in the same category as they would that block of wood that somebody put on the counter to stop the groceries from getting mixed up with each other, isn't that true?

Mr. Beaman: That apparently is their position.

The Court: All right.

By Mr. Beaman:

Q. Have you finished with the people?

A. No. I have a few more. There was Nat Milgram, from Milgram Stores, Kansas City; and Mr. G. L. Lyle from Great Atlantic & Pacific Tea Company, Houston, Texas; Mr. Roy Boyles, Super Market, Greater Atlantic & Pacific Tea Company, Houston, Texas; Mr. Martin, Great A & P Company, Houston, Texas; Mr. Dan Luncheon, Great A & P Company, Houston, Texas; Mr. Hess [fol. 92] Kline, Food Fair Store, Philadelphia, Pennsylvania; Mr. Bill Suterland, from Henke & Pellot Store, Houston, Texas; and Mr. Sam Cook, from Penn Fruit Company, Philadelphia, Pennsylvania; and Mr. Earl Wyatt, Wyatt Food Store, Dallas, Texas.

Mr. Beaman: That is all the direct.

Cross-examination.

By Mr. Glaccum:

Q. You testified that there was an increase of business in your Store No. 7. Was that an increase before or after the store was remodeled?

don't ever remember a leg. That counter is completely closed, in other words, as you see it here, but I don't remember a leg. There may be. Do you think that is a leg there, Mr. Beaman?

"Q. Well, Mr. Buchoz, apparently this photograph is not distinct enough for you to determine the construction of it vividly.

"Mr. Glaccum: I object to that question as leading."

The Court: What is he talking about there? I think I have this picture, haven't I?

Mr. Williams: That is right.

Mr. Beaman: Your Honor, there is a leg construction and I tried to point it out to the witness and he couldn't see it.

The Court: I can see why he couldn't see it, but there is a leg construction.

Mr. Beaman: Yes, and that is why——

The Court: Don't you think so, Mr. Glaccum?

Mr. Glaccum: Yes. We have other views.

Mr. Beaman: And that is why we took some photographs just before this trial of the construction in the A & P Store in Jackson so as to clear that point up.

The Court: Is that in No. 2, has that been pulled up by the checker? Has he pulled that up at all?

Mr. Beaman: It looks like he had pulled it up part way, your Honor, yes, it would indicate.

The Court: It looks longer.

[fol. 148] Mr. Beaman: It is the angle the picture is taken.

The Court: There seems to be about a foot, not quite a foot that this would run back to.

Mr. Beaman: This handle is where the cashier can grab it normally so it is usually slightly back of the cash register and directly adjacent to the drawer.

The Court: She has pulled it about a foot.

Mr. Beaman: Apparently she has pulled it about a foot.

The Court: This is not a good picture. I can understand why the witness wouldn't be able to see whether there was a support there but when you look at it long enough you see there is. You may proceed.

"The Witness: Mr. Beaman, I think that I know exactly how this counter is constructed, not as to dimensions, but I believe I know how it is constructed.

"Q. Would you compare for us this installation that you saw in Houston, Texas, this Turnham installation, so-called, with what you understand the construction to be in this photograph, Plaintiffs' Exhibit 2? A. You are talking now about the original model that I saw of the Turnham installation?

"Q. Yes. A. The original model that I saw of the Turnham installation was a regular checking counter as we knew it in those days with an extension built onto that checking counter with supports. Whether they were leg supports or how they were supported, I don't know; and this device that I originally saw was a part wooden and part metal device. It did not have any markings as I remember it on the sides of the device to assist the customer in arranging his merchandise, nor did it have a handle, as I remember it, as we see in this photograph, Exhibit 2, nor did it have, as I remember it, a wooden track; but it had a steel runner. That is as I remember it.

[fol. 149] "Q. Would you make a comparison of the functions as you understand the device in Plaintiffs' Exhibit 2 with this early Turnham construction? A. I would say that all of the advantages as I understood them of the original Turnham device, all of its advantages are present in the construction as shown in this picture.

"Q. That is this photograph, Plaintiffs' Exhibit 2? A. Yes.

"(Plaintiffs' Exhibit 3 marked by the reporter.)

"Q. Exhibit 3 is the March, 1947, issue of 'Super Market Merchandising' magazine, page 168. A. Yes.

"Mr. Glaccum: I object to that as immaterial and irrelevant.

"Mr. Beaman: I haven't introduced it yet, sir.

"Mr. Glaccum: Oh, I thought you did.

"Mr. Beaman: I would like to introduce in evidence the January, 1942, issue as well as the March, 1947, issues of 'Super Market Merchandising' magazine, and also the photograph, Plaintiffs' Exhibit 2, and your objection is what? Do you have an objection?

"Mr. Glaccum: I have an objection to the 1947 magazine and also to the 1942 magazine, but not to the photograph.

"Mr. Beaman: I think that is all on my direct examination.

"Cross examination.

"By Mr. Glaccum:

"Q. Mr. Buchoz, in the course of your business as an operator of Burroughs Adding Machines, you have come in contact with checking out counters and similar arrangements, have you not? A. Yes.

"Q. How new are the super markets? A. Pardon me; I didn't catch your question.

"Q. I say, how new are the super markets? A. I think I said that my first knowledge of what I know as a super [fol. 150] market was in the early thirties, in Detroit.

"Q. About that time or very close to that time, you saw Turnham's adaptation of the so-called counter pusher, did you not? A. Yes, within a few years.

"Q. Would you try to place the date a little bit more definitely for us? A. (No response from the witness.)

"Q. I think super markets came in around the time of the depression, around 1929 or 1930, but purely advancing that as a theory, I don't know. A. You may be right. I learned after I saw this market in Detroit—and I am assuming when you asked me the question, you were asking my knowledge personally of super markets. I understand that King Cullen had started super markets on Long Island prior to the opening of the markets in Detroit. I don't know how many years prior to that they had opened them but I had never seen them or had any contact with them.

"Q. What I am trying to place is, when you first saw a Turnham construction in actual operation. Was it in 1930 or in 1931 or when? A. I wish I could answer that, but I don't know.

"Q. Would you give us your best guess? A. Well, let me see now.

"Q. Was it during the depression or after the depression? A. I would say—I don't know when the depression ended, but I would say it was after the organization of the Super Market Institute in New York, which, I believe, was in 1935. I would say it was after then.

"Q. After that date? A. I would say it was after that date if the Super Market Institute was organized in 1935. I went to Houston after that time.

"Q. Well now, when this Super Market Institute was organized, those people who were interested in super market

generally co-operated, didn't they? A. Oh, very cordially; yes, sir.

"Q. And they started to use any means that was available to stack merchandise or to eliminate the customers' trouble [fol. 151] in finding their merchandise, did they not? A. I would say from my observation that I met a great many men visiting competitive stores, sizing up their methods of operation, and as you say, their methods of arranging merchandise, properly displaying and properly placing the meat departments and the vegetable departments, and so forth, yes, sir.

"Q. And is it not true the Kroger and the A. & P. and King Cullen and a number of the other big stores that had super markets cooperated generally in their ideas as to how to get the goods out and to the customer? A. I would say that among the members of those who are members of the Super Market Institute in their various meetings were very generous in their exchange of ideas, yes, sir.

"Q. Would you tell me, please, who were the members of the Super Market Institute? A. Of course I can't name all of them.

"Q. No, no. I understand that, but I mean to the best of your ability? A. Who they were?

"Q. Yes. A. I haven't the slightest idea how many there were, but there was a great many of them.

"Q. Well, the A. & P. was one, were they not? A. I don't know.

"Q. How about Kroger? A. I don't know.

"Q. How about King Cullen? A. Yes.

"Q. And Safe-Way? A. I don't know.

"Q. You don't know? A. No. I meet men there at the super market meetings that I have attended, and I have met practically all of them from most of the companies, that is, in their sessions, but when I say I don't know, I don't remember meeting men from the companies that you have mentioned, no, sir.

"Q. Would you name some of those companies? A. Well, there was the Weingarten, the Wrigley stores in Detroit; the King Cullen; the Food Fair of Philadelphia; Penn-Fruit, Philadelphia; and in Oklahoma, I am not sure whether they call it the Stop-and-Shop, but that is in Oklahoma, and there is just any number of them. I just can't remember them all.

[fol. 152] "Q. And they generally would get together and exchange ideas, is that right? A. Yes.

"Q. Now, you testified that sometime, the date of which you are not sure, 1931, 1932, 1933, 1934 or 1935, Turnham showed you one of his operations in actual operation? A. Yes, sir.

"Q. Where was that, down in Texas? A. Yes, in Houston.

"Q. Are you generally familiar with the chain market magazines? A. I get the 'Chain Store Age.'

"Q. Do you get any others? A. The 'Chain Store Age,' I believe, is the only one that I am familiar with.

"Q. Have you noticed in those from time to time the advertisements—not the advertisements, but, rather, the illustrations of a counter pusher? A. You mean in 'Chain Store Age'?

"Q. Yes. A. I can't answer as to whether or not this thing was ever shown in any publication, I don't know. I didn't know that it had been published until I saw this today in the March, 1947, issue of 'Super Market' magazine. I wouldn't say whether it was or wasn't, I don't know.

"Q. That idea is just to move the merchandise up in front of the checker, isn't it? A. To expedite the handling of merchandise at the checking counter, yes.

"Q. And to move it from a point remote to the checker up to right in front of her practically? A. I would say so, yes.

"Q. And to do that, Turnham used three pieces of wood, did he not? A. I don't know whether it was three or twenty-three.

"Q. Well, up to the time that Turnham made his development, they brought the basket in, did they not, to the checker, and somebody lifted it up on the counter? A. Well, they wheeled it up in the bascarts and either the customer lifted it up or else the checker reached over the counter and took it.

"Q. And under the present arrangements, the customer [fol. 153] picks it up and puts it piece by piece on the counter? A. In some stores there may be an additional person that does it, but in the stores that I have observed very recently, the customers have been doing it.

"Q. During the war, there was a shortage of personnel, was there not? A. Yes, sir.

"Q. And store managers used every aid possible? A. Yes.

"Q. So that during the war when there was nobody to pick the stuff out of the basket, it was logical for them to get the customer to put the merchandise up on the counter if they could, is that right? A. It was logical at any time, whether it was war-time or otherwise.

"Q. But it was more logical during the war when help was scarce, wasn't it? A. It was more logical because of the shortage of help and the inability of, I imagine, the large operators to properly man their counters.

"Q. So that the main idea behind this whole counter pusher design was to get people to put their stuff on the counter so the girl wouldn't have to lift it out of the basket, and to get it oriented and in one spot so that the cashier could pull it right down, is that right? A. That was one of its advantages. The main idea was to get the good will of the customer by expediting the handling of each transaction, because there was a tremendous amount of complaint about the time that it took to get people through the checking counters.

"Q. So by doing it that way, they saved a little time, did they not? A. That was my observation. As a matter of fact, one of the boys from Houston who worked for Burroughs told me they were advertising it as the fastest checking counter operation in America.

"Q. Well now, as a member of Burroughs' staff, you were interested in selling adding machines and cash registers, is that right? A. That is right.

"Q. And you were also interested in improving in any way you could the general check-out counter? A. Yes.

"Q. Do you recall that in 1941 Burroughs published an [fol. 154] article explaining this very same thing? A. No, I don't recall it.

"Q. But if you had seen anything like that, you would use it as a sales talk to your customers, would you not? A. I would use it in assisting customers, yes, sir; in giving them ideas that would benefit them.

"Q. Now you have indicated that during the war years you were involved in government operations. A. I was with Burroughs, yes, sir, buying for them.

"Q. And at that time you were not selling equipment, were you? A. No, sir, pardon me. During that time, I made several trips for the Burroughs Adding Machine Company which were special assignments. I was never completely released from the selling division of Burroughs. I was simply on loan to the purchasing department to help Uncle Sam to get the bomb sight built.

"Q. As a matter of fact, all of the adding machine companies and similar equipment companies were very busy in war business, were they not? A. Yes, they were.

"Q. But during that time you didn't have occasion to visit retail super markets, did you? A. Except to buy merchandise every week with my family.

"Q. The same as I? A. That is right.

"Q. How many different stores did you go into during that time? When I say different stores, I am not interested in the number of retail stores, but more in the number of—Kroger, Safe-way—different ownership stores. A. Are you referring now to the war years?

"Q. Yes. A. Most of our purchases in Detroit were confined to purchases made from the A. and P. Tea Company, and from Wrigley markets. We occasionally stopped in a Kroger store if that was reasonably close to our home.

"Q. Well, did you go into the Safe-Way Market at all? A. As far as I know there are no Safe-Way stores in the City of Detroit.

"Q. I stand corrected. How many other stores did you go into? A. You are referring to food stores?

[fol. 155] "Q. Yes.

A. Super markets?

"Q. Yes.

A. In the early part of 1946, because of a confidential investigation that the Burroughs Adding Machine Company was making, I visited in the City of Detroit a great many super markets. This investigation had nothing to do with the sale of Burroughs products at that time, but was simply made to determine the type and class of equipment being used at that particular time. That was in the early months of 1946, just prior to my coming to Grand Rapids.

"Q. Well, now, in how many of those stores that you went into were these counter pushers being used?

A. I will try to recall them for you if I can——"

The Court: When was that? What year?

Mr. Williams: 1946, your Honor.

The Court: 1946, all right.

"Well, Wrigley's were using them, I know that, and A. and P. were using them and in the store that I visited on Livernois in Detroit, if my memory serves me correctly, Kroger was using them also. That is as far as my memory takes me. I can't——

"Q. But they were a natural development, were they not, of the super market?

A. I think that is well put, 'natural,' because it would seem to me that any thinking individual in the super market business who saw one of these counters working would say that it was a very fast operation, and, therefore, a common-sense idea, and would adopt it. I know I would.

"Mr. Glaccum: I think that is all."

The Court: This has all been direct examination, hasn't it?

Mr. Beaman: No.

The Court: I thought you were going to take the cross examination.

Mr. Glaccum: Mr. Beaman was doing so nicely.

[fol. 156] The Court: Who asked that question about it was always a development of the——

Mr. Glaccum: I did.

The Court: I wondered why you were asking it.

Mr. Beaman: I am sorry, your Honor. I thought you caught when we changed over from one to the other.

The Court: I missed it, but it is all right. I suppose he is telling the truth, this witness is anyway here, both times.

Mr. Beaman: Your Honor, I would like to have it appear on the record Mr. Buchoz was under subpoena in this case and I think he was very impartial.

The Court: Is there re-direct, or is this ended?

Mr. Beaman: That was all of Mr. Glaccum's questions. Just a statement by me.

I would like to have it appear on the record the witness was subpoenaed in this matter.

That is the end of the deposition except for the usual stipulations as to waiver of signature and so forth.

The Court: All right. Anything else?

Mr. Beaman: I would like to check, your Honor.

I would also like it to appear on this record, with the exception of the plaintiffs in this case, and employees of the Weingarten Store that were called, and Mr. Lurie, that all the other witnesses were subpoenaed, including Mr. Buchoz.

If I haven't introduced into evidence all of Exhibits 1 to 24, I would like to offer them in now. I think they have all gone in.

The Court: Any objection?

Mr. Glaccum: I don't have a record of all of them, from 2 on.

Mr. Beaman: Your Honor, we have two exhibits here, [fol. 157] Plaintiffs' Exhibits 6 and 7, constituting letters written in 1945 breaking off negotiations with the defendant, and I don't think they are proper.

The Court: All right. You are not putting them in?

Mr. Beaman: I am not putting them in, so that would reduce our exhibits. Exhibits 5 and 6 are withdrawn.

Mr. Williams: No. 6 and 7.

Mr. Beaman: 6 and 7 are withdrawn.

The Court: 6 and 7 are withdrawn, and that gives 1 to 25 inclusive?

Mr. Williams: 1 to 24.

The Court: Inclusive?

Mr. Williams: With the exception of 6 and 7.

The Court: All right. I want you to put them in order anyway when the time comes.

Mr. Beaman: I believe that concludes our case, your Honor.

The Court: All right. What about the defendant? Do you care to make an opening statement at this time?

Mr. Glaccum: I don't think so, your Honor. I think it is quite clear our position. It is a natural development. It appears from the evidence put in by the plaintiff that a number of people thought about substantially the same thing, and the various pushers that appear in these articles do not follow the Turnham design, they follow modifications more nearly resembling Exhibit 13. I am referring now to the article in the——

The Court: Will you admit 13 is sufficiently like 17 or 18, whatever that number is?

Mr. Beaman: 16, your Honor.

The Court: 16, That is, I understand you admit that if No. 16 was patentable that any model such as 13 is an infringement of that patent?

Mr. Glaccum: It would be an infringement of the claims. [fol. 158] But what I am attempting to bring out, we don't believe Turnham was the only one that came to this conclusion; that it was pretty generally thought up by a great many different people in different parts of the country.

The Court: Well, so far all I have before me is that he was the first one to think of it.

Mr. Beaman: Your Honor, there is nothing in the pleadings in this case to call our attention to any other developments.

Mr. Glaccum: We didn't introduce these magazines. You did.

The Court: What about this question of the parties in interest? Here is a man who has a written interest in this patent and who doesn't appear as a plaintiff. I don't care so much about the unwritten interest that Mr. Weingarten may have with members of his family.

The Court: I am not surprised at the arrangement he may have with his brothers and sister. Legally he probably has complete control, but he recognizes as between his brothers and sister that they have an interest.

Mr. Weingarten: That is correct.

The Court: But they couldn't come into this court and enforce any interest.

Mr. Beaman: Your Honor, Mr. Turnham, as I understand it—and this matter just came up so I am just giving it to you as I understand it—Mr. Turnham made a complete assignment of all his interest in this patent to Mr. Weingarten.

The Court: He said, in answer to the question that "I have a written agreement." Now, if he has, shouldn't he be a party in interest here?

Mr. Beaman: As I understand it this written agreement goes only to the interest in any income that might come from this patent. The legal title is in Mr. Weingarten, that is so far as the assignment records of the Patent Office appear.

[fol. 159] The Court: Well, I am asking about that anyway. It came in and I didn't know about it.

Mr. Beaman: Your Honor, these interests that Mr. Weingarten was talking about were an interest in the income and not in the patent.

The Court: Would that make any difference?

Mr. Beaman: Yes. In order to bring a suit for infringement the owner of the legal title has that privilege, and unless his interest was of that character he would have no right to bring a suit for infringement.

The Court: It came up in the trial here and I didn't know just how much there was to it.

Mr. Beaman: But as I see it there is no possibility of any other parties in interest proceeding against the same people for infringement.

The Court: My thought was if that were true perhaps you could cure it by an amendment, just as I would permit the defendant here to cure his pleadings by amendment because of something that had arisen during the course of this trial.

As you have indicated, you didn't introduce the magazines here.

Mr. Glaccum: That is right.

The Court: If there are any amendments to be made, you better think them over during the recess.

Right up to this time, the patent having been granted, and the patent being presumed to be legal and valid, isn't the burden of proof now upon the A. and P. to show it was not patentable?

Mr. Glaccum: That is right, your Honor. Of course we can argue that from some of the exhibits already in the record but we have others to put in.

The Court: Let's recess until two o'clock.

(Whereupon at 12:30 o'clock P. M., a recess was taken until 2:00 o'clock P. M.)

[fol. 160] Wednesday, April 2, 1947,
2:00 o'clock P. M.

(The Court met pursuant to recess.)

FRANK BUCHER, having been previously duly sworn, recalled as a witness on behalf of the defendant, and testified as follows:

Direct examination.

By Mr. Glaccum:

Q. Mr. Bucher, will you look at Exhibit 13 and tell us, please, if that is representative of the counter pusher or racks as originally used by the defendant?

A. I want to make sure I understand your statement, the pusher or the entire stand?

Q. The pusher and the stand.

A. As I mentioned the other day, our first approach to this was by means of a conveyor serving the same purpose but with entirely different construction.

Q. But then you also testified after you tried the conveyor, you went to the pusher, or to the rack.

A. We went to a pusher. Of course, there are no dimensions on this so therefore I can't tell, but in the course of our development we had various sizes of pushers.

Q. When you say various sizes, would you amplify that, please?

A. Some were shortened, some were longer, some had a shorter leg on one side than the other, some had this guide running on down through to here. But by trial and error, we got an idea that something else would do it just a little bit better. The principle was the same.

The Court: May I ask you this, does it take quite a bit of strength to pull that thing when there are groceries on there inside?

A. Well, quite a little. The top of the stand that we use, there again we did some experimenting and used a very smooth material on there, and the same with the type of material in this so-called pusher. We were [fol. 161] first using a plywood, and that plywood was fastened only with screws through the end, and we found that by pulling this that soon because of all the pressure on this one side, it came apart, so finally in the interests of both strengthening it and having it work easier, we went to a hard maple, had hard maple all the way around here.

The Court: That is heavier, isn't it?

A. It is heavier but it develops a sheen to it so it slides. Hard maple is used usually where two pieces of wood are in friction with one another.

By Mr. Glaccum:

Q. Is it equally true that the check-out counter is subject to constant improvement and change?

A. Yes. From the first super market, I would say, we put in, we have been constantly changing the stands. For instance, this stand doesn't represent the latest stands that we are putting in today in many respects.

Q. And made even further changes?

A. Changes are being made constantly in the interests of two things, to do a better job and a quicker job, and taking less space. For instance, with rationing going out of the picture, the problem is a little different than it was during the period of rationing, so we were able to shorten the counter, were able to narrow the counter, all of which allowed us to use the space in the store to better advantage.

There was a little change here that we went on for years with and didn't realize that we could improve it. First we had a counter that went all the way across the top, if you know what I mean. There was no change in here. Well, then we found that the bagger was putting the bag up on top and raising the merchandise up and dropping it in the bag. So it occurred to us by putting a hole in here, setting the bag down like on this chair, the clerk practically tossed the merchandise in the bag.

[fol. 162] Then for years we went on with that, but with various variations because of handling cigarettes, changing types of cash registers, and so forth, and here within the past few months we finally found we have been wasting this entire amount of space because the space in back of the stand wasn't being used to advantage, so we merely cut this off and put it right over here.

The Court: How does she get in there?

A. We shortened this up because it isn't necessary that be so long.

The Court: How does she get in there?

A. She comes right through here.

The Court: Is there a gate?

A. No. This partition doesn't extend proportionately quite as long as is shown on there.. In other words, we

reduced the overall length of the stand from eleven feet six, which is one hundred thirty-eight inches, to exactly one hundred inches.

The Court: Don't you use two operators there?

A. We use one, two and three operators, dependent upon the conditions.

The Court: You took this end off?

A. And turned it around here.

The Court: Where does the girl that puts the groceries into the bag, where does she sit?

A. The one who does the sacking is here.

The Court: Stands there, all right.

A. If it is during a period of the day when there isn't a heavy flow of traffic, she does the entire job, she does the checking and puts the merchandise in the bag. As we turned this around, we made provision, these are little bag racks here, we made provision for bags to be accessible to this checker. We found that to be the most efficient way to operate the stand with one person, not the fastest, but cheapest in cost per thousand dollar sales. Then when the traffic starts to increase, we put an extra person on. That person stands right at the end, right here, and does the bagging. Then if traffic still continues heavy [fol. 163] and we have people waiting, and all of the stands are open, we put a third person on who stands up here and does the unloading of the baskets.

The Court: How can that be very much of a help, because you can unload faster than that girl can check at the cash register, no matter how slow you are?

A. Not on heavy orders, your Honor. Here is what happens. On the picture that I saw, we show in here some printing saying "Groceries," "Produce," and so forth. That merely is put on to guide the customer so she will put the merchandise there. But usually a customer, and particularly a woman going through a check stand, has the basket carrier in front of her, she has her purse under her arms, and usually when she is unpacking this carrier she is working with one hand and not two, unless she finally wrestles around and gets two hands there. Now, if there is a light order being checked here, maybe a dollar, maybe a couple packages is all it would take for a dollar, and this woman back here has fifteen dollars worth of merchandise, obviously she cannot unload this merchandise while this checker is doing

A. After we remodeled the checking counters in the store.

Q. The entire store was remodeled?

A. No, sir. We just remodeled the checking counters.

Q. Does the store look like that, like Exhibit 19?

A. We turned those counters a different way. We turned those counters around to relay the customers into the lobby before we relayed them next to the basket holders.

Q. You testified that a gentleman from Handy Any, A B C, and a number of others stores visited your store and looked at this checking counter. Do you know whether or not they are employing similar counters?

A. I do not know.

Q. You don't know?

A. No, sir.

Mr. Glaccum: That is all.

The Court: Do you know anybody besides the A & P that has a counter like this that is not paying a license for it?

A. I wouldn't know.

The Court: Has there been any evidence on that at all?

Mr. Glaccum: I don't believe the A & P use them in Texas.

The Court: Any place the A & P do use them.

Mr. Glaccum: They use them in this area.

[fol. 93] Mr. Beaman: I don't know I understand your question.

The Court: Kroger use any in this area?

Mr. Beaman: Yes, they do. That young man from Jackson testified Kroger Company just put them in.

The Court: How about C. F. Smith, the Smith outfit here?

Mr. Glaccum: I was in about five different super markets yesterday, they were using them.

The Court: Different people?

Mr. Glaccum: Yes.

Mr. Beaman: Your Honor, there are a great many different chains and different independent stores that have these devices.

The Court: They are not licensed?

Mr. Beaman: They are not licensed, that is correct.

The Court: They refuse to recognize the patent, is that right?

Mr. Beaman: They have. The Kroger and A & P have used them very extensively, and these other people have come along and used them, and apparently most of them are standing by to see what happens. This litigation has been publicized, and it is a question now of determining whether or not the patent is a valid patent or whether it isn't.

The Court: I see.

Mr. Beaman: There is just one question.

Redirect examination.

By Mr. Beaman:

Q. I think the Judge asked you if you knew any other concerns using these pushers other than A & P. Do you know of any concerns beside Weingarten in Texas using them?

A. You mean in Houston, Texas?

Q. Yes.

A. Oh, yes, Houston, Texas, they use them over there. Some of our competitors use them.

[fol. 94] Q. What competitors?

A. Minimax Store has them, and Henke & Pellot Stores. I have never visited no stores.

Mr. Beaman: Your Honor, answering that question further, the witness mentioned this Food Fair. In this recent issue here of the Super Market Institute, "Super Market Merchandising," there is an advertisement of a new 20,000 square foot store with ten sliding type checking stands and nine departments. That is March, 1947. That is typical of the expanded use of this type of device.

The Court: Isn't any question but what it is extensively used and will be. The only question in the case is whether or not you have a patent.

Mr. Beaman: That is right, your Honor.

The Court: Whether it is a valid one.

The Witness: Your Honor, it will save you on labor. That is the reason we changed to using them. It will save the extra cost of extra checking counters and——

Mr. Glaccum: I don't think he is answering any question. He is just volunteering a statement at the moment.

Mr. Beaman: That is all, Mr. Sobotik.
The Court: Will you be introducing the file in this case?
Mr. Beaman: The file history?
The Court: Yes.
Mr. Beaman: Yes, your Honor.

JOSEPH WEINGARTEN, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Mr. Weingarten, will you state your full name and age?
A. I am Joe Weingarten, is my full name; I am sixty-two.
[fol. 95] Q. Where do you live?
A. I live in Houston, Texas.
Q. What is your business?
A. I am a food merchant primarily.
Q. And how long have you been in the food business?
A. Well, my dad opened up a store in 1901, and I went in there with him at that time.
The Court: Your father started the store then?
A. Yes, sir.
Q. Was that in Houston, Mr. Weingarten?
A. That is Houston, yes.
Q. Have you been in the food business ever since then?
A. Yes, sir.
Q. How long have you been running self-serving grocery stores?
A. Well, we opened up a self-service grocery I think about six or eight months after Clarence Saunders opened up his Piggly Wiggly there in Houston, and that was the second Piggly Wiggly that was opened in the United States. The first one was in Memphis and the second was in Houston. And we converted to self-service about six months after that, and somewhere around 1919. I am not very good on remembering dates, but somewhere around there.
Q. How many stores did you have at that time?
A. We only had one store at that time.

Q. In 1919?

A. Yes, sir.

Q. And have you expanded that number of stores at the present time?

A. We have twenty stores at the present time.

Q. Going back to this period from 1919 to 1930, Mr. Weingarten, about what was the size of your self-serving stores?

A. Well, at that time, in 1919, we had, I suppose, the greater part of that building which was one hundred twenty-five feet by about eighty-five, so that at that time we must have occupied approximately, I would say, eighty by eighty-five, about seven thousand, seventy-five hundred square feet.

Q. What store do you have reference to now?

[fol. 96] A. That was the first store where we put in self-service in 1919, approximately that time.

Q. Will you call it your No. 1 store?

A. Well, the No. 1 was really on Congress and Crawford. We started that in 1901, dad did, with about three hundred that my mother had put away. He went busted in the dry goods business, and she had this little money put away. That was really No. 1. But that was No. 1 at that time because we moved from there on over to McKinney and Labranch Streets, right across the street from where Judge Joseph C. Hutchinson lives, right across the street there, and then we moved from there.

Q. What I am trying to find out is how large were these stores you had around 1927, 1928, what was the size of them?

A. Well, that particular store, we thought that was an awful big store at that time. That was around seven thousand square feet, I would judge.

Q. How many checking counters did you have, do you remember?

A. Why, no, I really don't. It wasn't over a couple of them, I don't imagine.

Q. Well, then when did you build additional stores? What period did you start expanding?

A. Well, we started expanding right after that time. We put in a store in about 1920, Store No. 2.

Q. And how large was that?

A. And that was about fifty feet wide, and I guess it was one hundred fifty feet deep; and we had the second floor of that store there, too, for store use.

Q. Now, did you have Store No. 7, as they referred to here?

A. Yes, sir.

Q. How large was that store?

A. Well that store has got, I imagine, twenty thousand square feet on the first floor, and has a mezzanine of about, I imagine five or six thousand square feet.

Q. How many checking counters did you have in No. 7?

A. Well, I believe we had four. Frankly, I don't remember absolutely.

Q. How many do you have in No. 7 now?

A. What is that?

[fol. 97] Q. How many do you have in No. 7 now?

A. I think we have about eight or ten.

Q. You have eight or ten in No. 7?

A. Yes, sir.

Q. Checking counters?

A. Yes, sir.

Q. And when was No. 7 constructed, do you recall?

A. Well, about twenty years ago, somewhere eighteen to twenty years ago, I think if I am not mistaken, I believe it was. There is a stone in the front and I believe that has got 1928 or 1929 on it, or somewhere around there.

Q. I see. Mr. Weingarten, are you the owner of the patent here in suit?

A. Yes, sir.

Q. And did you acquire that from Mr. Turnham by assignment?

A. Yes, sir.

Q. And you are one of the plaintiffs here?

A. Yes, sir.

Q. Do you recall anything about the development of the Turnham device, this pusher device that is disclosed in this patent?

A. Well, I was quite active in the business at that time, not that I am not active now, but I attended to more details at that time than I do at the present time, and the business was growing considerably, and Adolph Sobotik there was after us to put in some more checking counters.

Q. Do you know when that was?

A. Well, as I say, I don't know absolutely. I know I have one date pretty well fixed in my mind, and that is the time that we had that big fight with the A & P Tea Company, and that was the year of 1938, 1937 or 1938; and that was just about that time, somewhere around that time.

Q. Mr. Weingarten, is there such an organization known as the Super Market Institute?

A. Yes, sir.

Q. Have you taken an active part in that organization?

A. Yes, sir. I have taken an active part since its formation.

Q. And when was it formed?

A. Well, I think it was formed about ten years ago. Bill Albers was president for seven years; and I was president for about two years; and now we have Sidney Rabb as president. So I think that is about ten years.

[fol. 98] Q. And you would fix that somewhere around 1937-1938?

A. I think so, somewhere around that, probably the fall of 1937.

Q. Mr. Weingarten, you were served with a subpoena duces tecum to produce certain records that might have reference to inquiries by concerns relative to this pusher development. Did you make a search for such records?

A. Yes, I did.

Q. Were you able to find any?

A. No, sir.

Mr. Beaman: Your Honor, in response to that request I was able to find in my files some letters, some recent letters on the subject, and so was Mr. Clark, Mr. Turnham's patent attorney, and we have exhibited those to Mr. Glaccum, and if he wants us to produce any of them, we are very glad to.

By Mr. Beaman:

Q. In connection with this Super Market Institute, have you had occasion to travel throughout the country?

A. Yes, sir. I have gone pretty extensively all over the country.

Q. Do you have conventions and meetings in the various cities?

A. Well, during the first year, that has been a little over two years ago, I took a trip to, a bunch of us took a trip to

the West Coast and had some meetings there in Los Angeles, and also in San Francisco. But most of my traveling has been just more in a personal way, just going over to different parts of the country to see what the other fellow was doing, getting some new ideas, and so forth and so on.

Q. Have you had occasion to discuss this pusher development with other people in this business?

A. I think this pusher thing has been discussed pretty nearly since the formation of the Super Market Institute. It might have been possibly not the first meeting, but the super marketeers in general had been very much concerned, and still are concerned with trying to find better means to handle the trade at the checking counter, and that has always been one of their headaches, and one of their prob- [fol. 99] lems, and I don't believe there is, as far as I remember, a meeting of the Super Market Institute where in some fashion this thing doesn't come up about checking stands, and changes, the best checking stand, and who has got it, and what is a better way. Is it better this way, this kind of pusher device? Is it better cut out, or is it better with a great big long basket? Some of them advocate those long baskets to hold a lot of stuff, and not two baskets, and all that kind of stuff. There has always been discussion.

The Court: How about the wheel? Have you ever seen the wheel that they talked about this morning, that turntable there?

Mr. Beaman: Your Honor, the witness was not in court this morning. He just flew in.

The Court: Well, we will recess until tomorrow morning at the usual hour, at 9:30.

(Whereupon at 4:00 o'clock P. M., a recess was taken until the following day at 9:30 o'clock A. M.)

Wednesday, April 2, 1947, 9:30 A. M.

(The Court met pursuant to adjournment.)

JOSEPH WEINGARTEN, having been previously duly sworn, resumed the stand and testified further as follows:

Direct examination (continued).

By Mr. Beaman:

Q. This morning, Mr. Weingarten, you handed me two pages from the "Super Market Merchandising Magazine," May, 1946, issue, and also a copy of "Voluntary and Co-operative Group Magazine," March, 1947, and called my attention to page 50.

Mr. Glaccum: May I take a look at that?

[fol. 100] Mr. Beaman: Yes (handing magazines to Mr. Glaccum).

(Plaintiffs' Exhibits 21 and 22 marked.)

Mr. Beaman: These pages from these magazines have been identified as Plaintiffs' Exhibits 21 and 22.

By Mr. Beaman:

Q. Would you look at the checking counter construction shown in those two articles and state whether or not it is of the same type installed in your No. 7 store in 1937?

A. This is very much like it because this one, Exhibit 21, due to the fact that it has this kind of a hinge arrangement whereby there is about two and a half or three feet of counter top that is hinged, that can be let down just as ours was, except that ours had two legs under it and this has one.

Q. And with reference to Plaintiffs' Exhibit 22?

A. This is a good deal like it, not exactly, but it is the same principle involved.

Mr. Beaman: I would like to introduce in evidence Plaintiffs' Exhibits 21 and 22 as showing further uses of these devices, the one in Exhibit 22 relating to a device in Columbia, South Carolina.

The Court: The same kind of an arrangement?

Mr. Beaman: Yes, your Honor. And Exhibit 21—Penn Fruit Company, it doesn't give the location there in the article.

The Court: Any objection?

Mr. Glaccum: I don't see the relevancy, your Honor, except to show apparently these people whose stores are shown in these photographs and articles had the same idea about the same time.

Mr. Beaman: Your Honor, this is just an accumulation of commercial use of this type device.

The Court: Isn't any question about that, is there? It is being used all over the United States?

Mr. Beaman: That is correct.

[fol. 101] The Court: They don't dispute that.

Mr. Beaman: I don't think they admitted it either.

The Court: All right. It is all right, it is in.

I noticed that yesterday you introduced proof to show that back in 1919 they had a self-service super market, so-called.

Mr. Beaman: Yes, your Honor.

The Court: Is that to show that there has been a need for this kind of device for all these years, is that the purpose of that?

Mr. Beaman: Yes. It has been our position since 1917 when Piggly Wiggly came out with the self-serve store with a checking counter, that in rush periods this need for something to facilitate passing of customers through the checking counter has existed, and there was no solution for it; as a matter of fact, there were no attempts made to solve it at that particular point of congestion up until 1937.

The Court: The fact they had self-serve stores and checking counters, does that prove the need? There might not have been the business. There certainly wasn't the business in 1932, 1933, 1934 and 1935, that is grocery stores weren't so crowded then.

Mr. Beaman: Your Honor, the need for this device arises whenever there is more than two persons trying to check out at the same time.

The Court: Well, that is true in every grocery store, isn't it, where they didn't have the self-serve?

Mr. Beaman: That is right. It is a question of waiting there.

The Court: The fact something can be done faster, does that mean there is a need for it?

Mr. Beaman: I think there is always a need. It is our position, anyway, that there was a need for some device on the checking counter, or the counter of grocery stores, [fol. 102] especially self-serving grocery stores, which would expedite, facilitate and speed up the waiting period, reduce the waiting period.

The Court: Suppose that there had never been any kind of a self-serve store, so-called super market until 1937; is that when you people put in your store?

Mr. Beaman: The installation was made in 1937.

The Witness: We had it about 1919.

The Court: When was it A. & P. and Kroger put it in their store?

Mr. Beaman: I don't think it clearly appears from the record just exactly what date.

Mr. Glaccum: I think Mr. Bucher testified it was 1937.

The Court: Let us say that there wasn't any need for this until 1937, let's just say there wasn't. The mere fact you have some kind of combination doesn't mean that there is a need for it because if there had been a need for it, wouldn't somebody have tried to solve it before 1937?

Mr. Beaman: That is a good question, your Honor, and that is why we have been trying to show here that these devices, these checking counters were used in self-serving stores, in large stores right through from 1917 right up to 1937, up to the present time, and the need did not arise in 1937. Mr. Sobotik testified that his store in 1937 was so crowded on Saturdays that he couldn't handle the business and that he wanted more checking counters.

The Court: Isn't that the only proof here on need? Isn't that the only proof you have here on need, not that the stores did not exist before. I am trying to think of some [fol. 103] item that now appears to have been a need all along, and wasn't a need at all back in 1919-1920. As a matter of fact, I saw in the paper the other day where you are going to be able to press a button while you sit in your car and an automatic jack will raise your car up and you will be able to take off the tire. It is a fact. I saw that in the paper somewhere; I think some of you must have seen it. When we get those things, we have had a need for that for forty years.

Mr. Beaman: Your Honor, those devices have been developed for nearly that long.

The Court: Would it make any difference in the law whether the need existed in 1937?

Mr. Beaman: Yes. If the need for this device just came into being in 1937, and several concerns throughout the United States developed this simultaneously, it would affect the presumption of validity of any patent that might have been granted to any one inventor. But in our case we are trying to show here this need, this congestion and this waiting period has existed not since 1937 but for years prior to that time.

The Court: All right. I would have to review the testimony anyway.

Mr. Beaman: I would like to ask Mr. Weingarten another question on that point.

By Mr. Beaman:

Q. Mr. Weingarten, I think you have testified that you have operated self-serving grocery stores since 1919, is that correct?

A. That is correct.

Q. I have reference now to periods of the day, or days of the week when you have a normal rush business, and would you state if there are such periods or days in the week when there is more business than at other times?

A. Well, there has always been in the food line, in our part of the country, at least, and from what I understand all over the country, that the week ends, and especially Friday and Saturday, have always been very heavy rush periods. As a matter of fact, there are a lot of concerns [fol. 104] that do fifty per cent of their business on Saturday. In fact, we have one store now that does that, though we do our best to spread it out. However, there are rush periods also on other days, during certain periods of that day, in other words, around between four and five, or five and six, closing time, there are always rush periods then also.

Q. Now, going back to this period, say 1919 to 1929, did you have similar rush periods in that period?

A. Yes, sir.

Q. And you had checking counters in your self-serve stores at that time?

A. Yes, sir.

Q. And did you have more than one checking counter in these various stores?

A. Oh, yes.

Q. About what was the average number of checking counters?

A. To begin with, I guess there was probably about three or four to start with.

Q. In each store?

A. Yes. And gradually put on more.

Q. And you installed additional checking counters in these same stores?

A. Oh, yes.

Q. That is, after you started out with four checking counters you might put in five or six?

A. Well, No. 7 started up with four checking counters, and I think that they have about eight checking counters now, or somewhere around that, I think it is eight checking counters, seven or eight.

Q. Back in this period, 1919-1929, did you add additional checking counters to your stores at that time to take care of the additional business?

A. Oh, yes, sure. The last three or four years, people have been pretty patient about waiting in line, but they weren't so patient about it before this war started and they wanted quick service. If you didn't give them quick service, somebody else did. Consequently, whenever we had a store where people started to bank up too much at those counters, why, we immediately did our very best to figure out some way or other so that that condition wouldn't [fol. 105] exist. And the only thing we could do prior to this little gadget that we got up, this thing we got up, this pusher device, was to add more counters.

Q. You spoke about people ganging up. When did that start in your business?

A. Oh, there has always been periods when our business —I think I testified we started with $300 capital and we started with one store, and our business has grown continually, especially since we put in this self-serve in 1919, either 1918 or 1919, our business has grown right along. Of course, we had quite a jump in business just around this 1937-1938 period, somewhere right in there, due to the

fact, I think, as it was brought out yesterday, this big fight that came up with A. & P.

Q. What period did this ganging up in your stores take place that resulted in your putting additional checking counters of the old type in? What period in your experience did that start?

A. What do you mean? I don't understand exactly.

Q. Well, you testified a few minutes ago that in certain periods of the day in the week that the customers would gang up in your stores. When did that start?

A. You mean week ends?

Q. Week ends or certain periods.

A. There has always been periods during week ends where there would naturally be more customers and more ganging up.

The Court: He wants to know how far back that went?

Q. How far back did that go? Did that go back to 1919 or 1929, or what period?

A. I think more or less we have always put in more checking counters, in other words, we had to. In other words, any business that grows, as it goes along will need additional facilities.

Q. Was that back in 1919 and 1920, was it back that early?

A. I wouldn't say it was back as far as 1919. We were having a pretty tough time keeping alive in 1919 and 1920.

Q. Would you say 1925?

A. I would say even in 1920 we opened up the store down-[fol. 106] town, No. 2 store downtown in 1920, and we had quite a problem there with checking counters.

Mr. Beaman: That is all.

Cross-examination.

By Mr. Glaccum:

Q. Mr. Weingarten, I believe you testified that sometime around 1937 or 1938, the Great Atlantic & Pacific Tea Company opened a market in Houston that you got in a little price war with, is that correct?

A. Yes. They had previously opened one like that in Dallas, and at the time Mr. Crocker was the manager of that Dallas Division; and then they opened up in Houston

after that. They went over with a bang, so they came over to Houston to do the same thing.

Q. Now, that caused you to change your business tactics somewhat, did it not?

A. Yes, sir.

Q. And you operated on a lower gross profit thereafter?

A. Yes, sir.

Q. And that in turn increased your sales, did it not?

A. That is right.

Q. So that you were selling more goods at a lower gross profit per item?

A. That is right.

Q. And that was, I believe Mr. Sobotik said, about the period that his store began to get crowded?

A. That is right.

Q. And I believe he testified he complained to you he didn't have sufficient check-out counters?

A. That is right.

Q. And you told Mr. Turnham to do something about it?

A. Correct.

Q. How long after you told Mr. Turnham to do something about Mr. Sobotik's complaint, how long after that did you install the counter pushers?

A. Well, frankly, I can't remember dates, or exact time, but I can remember it wasn't very long. We got action pretty good.

Q. Now, you testified about the Super Market Insti-
[fol. 107] tute. I believe you said you were president of it at one time?

A. That is right.

Q. What is the purpose of the Super Market Institute?

A. The purpose of the Super Market Institute is—it has quite a lot of purposes. One purpose, and one of the main purposes is to exchange ideas and thoughts. We always act in a body when it is necessary to act in a body, just the same as every other organization of its kind.

The Court: Does A. & P. and Kroger belong to that?

A. No, sir. We don't allow them to.

Q. So any exchange of ideas would exclude defendant in this case?

A. No, sir; no, sir; you were very active in having about five or six or seven people there at every meeting.

We didn't exclude you from listening. You didn't participate.

The Court: Are those the smaller chains?

A. That is the independents and the smaller chains, and we go as far as area chains, but we don't go into the national chain proposition. In other words, if a company has got a bunch of stores in a certain area, though it may be a pretty good-sized area, they are eligible, provided that the head men themselves will come there and participate in the meetings. We don't want anybody to be sending their second men down there, or third or fourth down there to listen and get everything they can out of it and then not give anything. That is usually what the big boys do, and that is the reason we don't want them.

The Court: Well, would a firm like the Smith stores here that cover the State of Michigan——

A. They would be very eligible.

The Court: Would Cunningham be eligible?

A. Yes, they would be very eligible.

The Court: Cunningham now is in three or four different states.

[fol. 108] A. Well, they would be eligible if they themselves would come to the meetings, their top executives that actually had the say-so would come in the meetings and would talk as well as listen.

By Mr. Glaccum:

Q. I believe you testified that No. 7 store that Mr. Sobotik managed in 1937 had four check-out counters?

A. Yes, sir.

Q. That is the store where you first put in this pusher device, is that correct?

A. That is correct.

Q. And do I understand now that it has eight check-out counters?

A. I wouldn't be certain, but I think it is somewhere around that.

Q. More than four in any event?

A. It is somewhere around eight. It may be one or two more, might be one less. It is certainly not less than seven; it might be ten.

Q. Does Mr. Turnham have any interest in this patent in suit?

A. Yes, sir.

Q. What is his interest?

A. Well, he gets a certain percentage of the profits.

Q. Does anybody else have any interest in it besides yourself?

A. Oh, yes, my brothers. It isn't stated. It is in my name, but everything we do—I have had until about a week ago three brothers, I have only two now and my sister.

Q. Is your business operated as a partnership?

A. No.

The Court: Any question about the parties in interest here?

Mr. Glaccum: Beg pardon?

The Court: Is there any question about the parties in interest bringing this suit?

Mr. Glaccum: There may be. I was just developing that.

By Mr. Glaccum:

Q. Would you give us the exact percentage of the various interests in this patent?

A. Mrs. Bradley has a ten per cent interest, and the balance of the ninety per cent is divided, Mr. Turnham has [fol. 109] twenty-five per cent, and then the balance of that, seventy-five of the ninety is between myself and my brother, Abe Weingarten, my sister, Mrs. Alexander, and her husband, Mr. Alexander, and the estate of my brother that just died.

Mr. Beaman: Your Honor, it might be good at this point, I would like to introduce the assignment of this patent from Mr. Turnham to Mr. Weingarten.

A. It is in my name. Understand, it is all in my name, but actually my part is divided with my brothers.

Q. Is this witnessed by any agreement in writing?

A. I don't think so, not between my brothers and myself. We don't ever have any. I don't even know whether Mr. Turnham has an agreement in writing. Have you got an agreement in writing, Ellis; did I make any agreement in writing for your twenty-five per cent?

Mr. Turnham: Yes, sir.

Mr. Beaman: I would like to introduce a certified copy of the assignment of patent in suit to Mr. Weingarten.

The Court: Any objection?

Mr. Glaccum: No, except insofar as it may be in conflict with the testimony.

The Court: It may be admitted.

By Mr. Glaccum:

Q. Do you have with you any instruments in writing that affect the ownership or interest in this patent?

A. No, sir.

Mr. Glaccum: That is all.

Mr. Beaman: That is all.

I would like to recall Mr. Sobotik, please.

[fol. 110] ADOLPH SOBOTIK, having been previously duly sworn, resumed the stand and testified further as follows:

Redirect examination.

By Mr. Beaman:

Q. Mr. Sobotik, you have testified in 1937, I think in July or shortly thereafter, these pushers to your counters were equipped with this Turnham development?

A. Yes, sir.

Q. With reference to that date, when was this so-called price war with A. & P.?

A. It started around about the first part of February, 1938.

Q. I would like to read to you one of the objects stated in the Turnham patent in suit, and ask you what it relates to, as far as this Turnham development is concerned, as you interpret it:

"Another object of the invention is to provide a framework for a checker counter whereby the goods of each customer can be grouped together and moved to a position convenient to the checker to be recorded."

What is this reference here to "grouped together," where does that enter into this?

A. That means this: When the customer comes to the self-serve department she takes a basket and carriage and goes around the store and picks up her own merchandise, and she throws the merchandise into the basket, some in be-

tween, some on top, some on the side, and then when she is ready to be checked out, either the customer herself or himself, or the boy helper, will prearrange that merchandise, presort it into its own group or brands. If the merchandise is marked three for a quarter, those three cans are put together in a group and they are ready to be pushed up to the cashier to be cashed out, and that is where the time saving comes in.

Q. Is that the reason why in Plaintiffs' Exhibit 1, on page 25, they refer to the counter shown there as a presorting counter?

A. Yes, sir, that is it.

Q. About how much space is required in the way of an [fol. 111] extension to your old counter to permit this presorting of the purchase?

A. Additional space?

Q. How much space does it take to presort the average purchase on the counter?

A. It will take about four square feet.

Q. And in your No. 7 store, how much of an extension was applied to the original checking counters?

A. Thirty-six inches long and about twenty-four or twenty-six inches wide.

Q. I hand you a photograph, Plaintiffs' Exhibit 2, which is a photograph that was furnished by the defendants in connection with interrogatories, and represents a typical installation of this pusher type of checking counter accessory in one of defendant's stores, and I call your attention to the printing that appears on the sides of this three-sided, bottomless pusher, and ask you to what that refers?

A. That is presorting the merchandise as I have mentioned. I notice they have "groceries," "meats" and some other commodities there. They are presorted before they are pushed up to the checking counter.

Q. From looking at this photograph, would you say that they are using this feature of the invention, of the Turnham development, rather?

A. Yes, sir.

Q. And when does this presorting take place?

A. It takes place when the customer takes the merchandise out of that shopping basket and places it on this pusher, on the counter where the pusher is.

Q. And they place that where, with reference to the checker and cashier?

A. They place it on the pusher over here, and then it is pushed up right up to the cashier, and the cashier takes them in rotation as they are presorted.

Mr. Beaman: I would like to introduce as Plaintiffs' Exhibit 2 this photograph that was furnished by the defendants in connection with answers to interrogatories.

[fol. 112] The Court: How long is that pusher or puller, whatever you call it?

A. About thirty-six inches, your Honor, approximately; some of them are longer, some are shorter.

The Court: This kind here, the checker has to pull the groceries up before her, and then she has to push the pusher back into place, doesn't she?

Mr. Beaman: That is correct, your Honor.

Mr. Glaccum: That is right.

The Court: And the new rig you have automatically goes back in place in some instances?

Mr. Glaccum: That is not disclosed in the patent. The patent does not even disclose that. It discloses one that is pushed up by a pushboy.

The Court: Well, of course they claim they did that before you did that. You got that idea from them.

Mr. Glaccum: The claims are broad enough in scope to cover it, but I say the patent——

Mr. Beaman: Your Honor, the claims we are relying on are claims 4, 5 and 6, and as a matter of fact, they are very limited. But the construction being substantially identical, they come clearly within it, and for that reason the defendants have admitted infringement if the patent is valid.

Mr. Glaccum: Our admission of infringement is not limited to 4, 5 and 6; it goes to all the claims of the patent.

The Court: I see.

By Mr. Beaman:

Q. Referring now, Mr. Sobotik, to the type of counter that you had in No. 7 store, prior to the time that you installed this Turnham development, did you have trouble with the customers coming up to the counter and more than one customer placing his groceries on the counter for service?

The Court: When do you mean?

Mr. Beaman: I am going back, your Honor, prior to the time this was developed.

[fol. 113] The Court: All right.

Mr. Beaman: And before these extensions were put on. I am asking the witness if there was any difficulty or any problem relative to the customers approaching the counter and putting their groceries on the counter prior to being waited upon.

A. Yes. Before we had those pushers, the customer, two or three customers came on the same counter, then the checker would have to stop and find out who's who, and who it belongs to. After we had these pushers the customer got so educated she would never get in front of the other customer until the customer's merchandise was moved up farther away, in line with the checker, and the pusher was returned back, and then she started unloading her own merchandise on the counter.

Q. Would you say that the movement of this counter sort of acted as an indicater, or signal for her to unload?

A. Yes, sir.

Mr. Beaman: That is all.

Recross-examination.

By Mr. Glaccum:

Q. Mr. Sobotik, you testified, I believe, that originally in 1937 there were four check-out counters in that No. 7 store?

A. Yes, sir.

Q. How many are there today?

A. Today there are seven.

Q. Seven. You found it necessary to increase the number of check-out counters?

A. Yes. The business is about one hundred per cent more than it was then, today.

Redirect examination.

By Mr. Beaman:

Q. Mr. Sobotik, in connection with that, back in 1937, you had these counters in the grocery department, dry grocery department?

A. Yes, sir.

Q. Are these counters checking anything besides dry gro-
[fol. 114] ceries at the present time?

A. At the present time just dry groceries like they were in 1937.

Q. Going back to 1937, when this counter was installed, this Turnham counter was installed in your No. 7 store, what benefits did you begin to appreciate, or did you appreciate at that time from this installation?

A. The benefits we have benefited by, that is, we have saved about one hundred square feet of additional space in that store by not putting in additional checking counters. Then we have saved the cost of extra counters. Then we have saved the cost of extra cash registers, which runs about pretty near up to over a thousand dollars. And then we saved the extra salary of the additional cashier. And also if we didn't have those pushers at the present time, and especially if we hadn't been prepared with those pushers at the beginning of the war when we had to put on girls for our checkers most of the time, before then we used to use boys, the boys would reach over the counter and help the customer with the basket on top of the counter because they were two-deckers and the boy had to get down to help the customer lift the bottom basket on top of the counter, but the girls could never stand up to that kind of heavy work. By having the pusher, the merchandise was ready for the girl to check out. She had no lifting to do.

Q. Did you ever have any of your employees injure themselves?

A. Previously, yes. Even the boys quite often, previous to this pusher we had quite a few injuries to some of the boy employees by lifting those baskets over the counter and straining themselves.

Q. In the light of your experience in self-serving stores, can you give me some approximation of the number, or of the amount of dollar sales that go through one of these checking counters in a year's time?

A. In 1937 the average per checker was about, close to one hundred thousand per year; and then in 1938 it goes up to one hundred twenty-one thousand. Today the business is much higher. The average checker takes in now about $200,000 per year in our stores.

[fol. 115] Mr. Beaman: That is all, Mr. Sobotik.

Do you have any more questions?
Mr. Glaccum: No.
The Court: All right.
Mr. Beaman: Mr. Lurie.

NATHAN W. LURIE, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. Mr. Lurie, will you please state your name and age?
A. Nathan W. Lurie. I am fifty years old.
Q. And your residence?
A. Detroit.
Q. And what is your business?
A. I am secretary-treasurer of the Wrigley Stores, Incorporated, Detroit.
Q. And what is the business of the Wrigley Stores, Incorporated?
A. We operate super markets in the Detroit territory.
Q. And what is your merchandise?
A. Groceries, fruits, vegetables, dairy products, meats and so forth.
Q. And what type of store with reference to type of service?
A. Self-serve.
Q. Self-serving stores?
A. That is right.
Q. And how many of these stores do you have in the City of Detroit?
A. Nineteen.
Q. You have checking counters in those stores?
A. Yes, we do.
Q. About how many checking counters do you have in each store?
A. I think we have four in the smaller stores and eight in the larger stores.
Q. I call your attention to Plaintiffs' Exhibit 13, and ask you if your counters are constructed with devices similar to that shown in this model?
A. Somewhat similar, yes.

Q. Do you have some sort of pusher or puller on the counter?

A. Yes, we do.

[fol. 116] Q. Could it be described as a three-sided, bottomless frame?

A. That is what it says, yes.

Q. And is there some sort of an extension on this counter, rearwardly of the cash register?

A. That is right. We have an extension off the rear of the counter.

Q. I call your attention to Plaintiffs' Exhibit 21, could you state whether or not your device is similar to that shown in that exhibit?

A. That is 21?

Q. Yes.

A. Yes. Ours is somewhat similar to that. That looks like the same thing.

Q. Is your company a member of the Super Market Institute?

A. Yes, we are.

Q. Do you attend meetings of that institute?

A. Yes, I do.

Q. When was the first meeting that you attended of the Super Market Institute?

A. I was there at the beginning, the inception of the Super Market Institute, which was in September, 1937.

Q. And was that the first meeting?

A. That is the first meeting.

Q. And do you recall about how many members, or how many persons attended that meeting?

A. I know it was very few, a handful, so to speak. I would say probably in the neighborhood of twenty to twenty-five. I know there was a small attendance at the first meeting. I remember that because we have grown to such size now that I am always referring to that.

Q. These twenty members, were they super market operators?

A. All, to my knowledge, were super market operators.

Q. And you remember in 1938 how many members you had, or how many attended your meeting?

A. I think there was about fifty.

Q. Mr. Lurie, I hand you a couple of sticks of wood here which have been marked Defendant's Exhibits A and B, and ask you if you can identify them?

A. Well, they look like sticks that we use in our stores.

Q. And would you explain to the Court how you use [fol. 117] those sticks in your stores?

A. Yes. At one time there was a line drawn across the counter for the purpose of having the check girl put the merchandise over the line so the packer would not pack the wrong merchandise before it was registered.

Q. This line that you refer to——

A. Was painted on there.

Q. With reference to the extension on the counter for this pusher, where is that line located?

A. Well, approximately halfway between this space in here and here (indicating).

Q. Halfway between the cash register and the sacking portion?

A. That is right.

Q. Go ahead.

A. And we found that the line eventually was covered up, it wasn't of any value. So either we conceived this ourselves or one of our supervisors or one of our boys picked it up somewhere else, I am not positive. Our girls are instructed to use a stick. When the woman's order is segregated, as soon as she checks this first item it goes over the stick, she keeps moving the stick back as the order gets larger on this side, giving the packer two lines. You understand that?

Q. Yes. With one or two sticks?

A. One stick is all they can use. As soon as the preregistered merchandise is sorted, ready for registration on this side, the stick usually is halfway down from the cash register—as soon as the checker has the merchandise sorted and ready, she checks and the merchandise is placed over the stick. As the order on this side diminishes, and gets larger over here, the stick is moved according to the order.

Q. Did you have a request the last few days for someone to furnish sticks similar to those that I referred to?

A. Asked if we were still using it and I told him yes.

Q. And who asked you if you were using it?

A. One of the officials of the A. & P. Company.

Q. And do I understand that you use those sticks on the counters that you have in your stores at the present time?

A. Yes, we do.

[fol. 118] Q. And does that mean they are used in addition to this three-sided frame?

A. That is right.

Q. So they don't take the place of it, is that correct?

A. No.

Mr. Beaman: That is all.

The Court: Do you pay a license to these people for the right to use that frame?

A. No.

The Court: How long have you used it?

A. Approximately six years, I imagine, or seven.

Q. Been any demand made on you to pay a license?

A. We received a notice of intent, that is that there was a suit pending. We have received notice on it, yes.

Q. Were you offered a license, Mr. Lurie?

A. I believe the form we had was an offer of license.

Cross examination.

Mr. Glaccum:

Q. I understand you have been using this pusher for six or seven years?

A. Yes.

Q. When the girls use these sticks they work them in pairs, do they not, two sticks?

A. No, one stick.

Q. They use one stick to separate the next customer's order?

A. No. Has nothing to do with the next customer's order.

Q. Would you contradict me if I told you I was in your store Monday and watched them work with two sticks?

A. Possibly. I doubt it. We have enough trouble making them use one stick, and using two is beyond me.

The Court: What store were you in, do you know?

Mr. Glaccum: Do you recall which Wrigley store we went in?

A Voice: Down on Mack Avenue.

A. We have two on Mack, one on Seven Mile Road and one at Ashland, I believe it is.

[fol. 119] The Court: Do you have one that doesn't have that pusher arrangement?

A. No. We have them in all, your Honor.

The Court: Your pusher arrangement has the extension at the back end, and the minute the checker pulls that pusher up, she sends it back again?

A. That is right.

The Court: Is that where that is divided, also had a division there?

Mr. Glaccum: They were using these sticks, as the witness testified, to move the merchandise over.

The Court: That is one stick.

Mr. Glaccum: And another stick on the right hand to separate.

The Court: Were they using it?

Mr. Glaccum: Well, it was rather slack when we were in there. I recall one counter using it.

The Court: Probably that is why she was using it, because it was slack. I mean, she wouldn't be using it if they were crowded.

Mr. Glaccum: As a matter of fact, we went into a great number of markets and in only one were they actually using the pusher because there wasn't a sufficient crowd, and the customers put their things on and they just moved them down. But I think that was only because of the lack of a crowd. That is all.

Mr. Beaman: That is all, Mr. Lurie.

I would like to introduce at this time the file wrapper of the Turnham patent in suit as Plaintiffs' Exhibit 24.

(Plaintiffs' Exhibit 24 marked.)

The Court: Any objection?

Mr. Glaccum: No.

The Court: Any particular part of that you desire to direct the Court's attention to?

Mr. Beaman: There was, your Honor, and I treated that in my trial brief.

[fol. 120] The Court: The claim of the defendant, among other things, as I remember, is that if the examiner had before him all of the facts, all of the prior art, he never would have given a patent in this case.

Mr. Beaman: That is the contention made here, your Honor.

The Court: Doesn't the file itself show what the examiner had before him?

Mr. Glaccum: It does, your Honor.

Mr. Beaman: Your Honor, the file shows the patents that the examiner considered were most pertinent. The examiner when he makes a search, goes through his prior art files. There may be several hundreds patents in each subdivision. I was an examiner once myself so I know pretty much about the procedure.

The case comes on the examiner's desk. It has been assigned to him, and is probably classified at the time it is received by him in a certain class in the patent office. Then his duty is to search through the most pertinent classifications that occur to him, and oftentimes they extend their investigation into other files. At the conclusion of his search he doesn't cite all the patents that he investigated, or looked at during the course of his investigation, but he picks out the most pertinent, and the most pertinent patents are noted in his actions on the application, and then it is up to the attorney who is representing the inventor to reply to the first official action, and so forth.

The Court: To what?

Mr. Beaman: To make an argument or reply, or amendment as we call it. Usually, in the prosecution of these applications, invariably patents are cited, and mostly on the first action all the claims are reviewed. And then it is up to the attorney to come back and present some argument or some amendment.

[fol. 121] The unusual thing about this particular case is the fact that on the very first action, that is the action of February 2nd, 1939, here is what the examiner said:

"It is thought that a claim describing specifically the rack (that is, the examiner is referring to this three-sided, bottomless frame as a rack) and its combination with the counter may be allowable over the references cited."

The Court: How did that start out?

Mr. Beaman: "It is thought that a claim describing specifically the rack and its combination with the counter might be allowable over the references cited."

Now, that is an unusual observation for an examiner to make. I think it is a very fine practice, but it isn't a standard practice.

In the second action on November 14, 1939, the examiner states this:

"The examiner recognizes that applicant's device is different in purpose and use from the devices of the references, but it is necessary that the claims bring out a patentable distinction."

That was his observation at that time.

The Court: Was it his position that the claims did not sufficiently cover?

Mr. Beaman: That is right.

The Court: To show it was patentable?

Mr. Beaman: Yes. He objected to the form of the claim. You see, the claim, your Honor, is a definition of the contract that is made between the inventor and the Government, and that is the thing that prolongs the prosecution of patents, and that is the thing that the examiner and his patent attorney argue about, and when the patent is finally allowed, it is allowed after this, more or less a lawsuit goes [fol. 122] on, it is argued back and forth, and they finally arrive at what the examiner thinks defines the invention.

Now, in the action of August 16, 1940, which is the third action, the examiner allowed at that time Claim 6. He says here:

"Claim 6 appears to be allowable."

Now, Claim 6 of the application is Claim 4 of the patent in suit, and is one of the claims that the defendant here has admitted would be infringed if the patent was valid, and that is one of the claims we are relying upon in that same action.

The examiner took this position with reference to Claims 7 and 8, which correspond to Claims 5 and 6 of the patent in suit, and those are the remaining two claims that we are relying upon, here is what he said:

"The examiner is unable to ascertain with exactness the part of applicant's structure which constitutes means whereby said frame is movable on said counter. The claims may be allowable by expressing the above clause as (and here is what the examiner suggests) 'said frame being movable on said counter.'"

And the attorney, representing Mr. Turnham, after receiving that action, adopted the recommendation of the examiner. And so we have, you might say, in a third action

the examiner allowing the three claims that we are relying upon here in suit, and which the defense claimed will be infringed if this patent is valid. So in my opinion the history of this case is very favorable to the presumption of validity, and also my opinion, your Honor, that the patents that the examiner cited during the prosecution, that is the ones that he picked out as being the most pertinent, are [fol. 123] equally pertinent as anything that the defense here have cited on their answer, or in connection with their interrogatories. I, personally, find nothing that is any more pertinent than what the patent office considered, and the defense have included, I believe, three out of four patents that the examiner cited. Which one they are relying upon the most, I don't know.

The Court: If there is no objection, that may be admitted.

Mr. Glaccum: I have no objection.

The Court: It says there: "Bottomless frame moving on a counter." Does any bottomless frame, any place, any arrangement come within that patent? Suppose for some reason I happen to have a one-horse grocery store over here where the customers come up one way and I have a frame like that and I put the groceries in there and shove it over, let a customer take them out, bring it back for the next customer, shove it over, does that come within that? No extension of the table at all.

Mr. Beaman: Your Honor, the essence of this invention, as I see it, and as defined by these claims, and I believe you have one of these charts that we have made out, the essence of this invention is set forth in Claim 6, I think, very well, and it calls for:

"A cashier's counter for cash and carry type grocery comprising a portion (A) (is that extension) spaced from the cashier's stand (B) (something in addition to the cashier's stand as it was originally known at that time), and upon which the merchandise may be deposited and arranged (that is that presorting that Mr. Sobotik testified to), a bottomless frame (C) on said portion (A) (when they talked about Mr. Bradley's construction, there is the main distinction. Mr. Bradley had something on there that had a bottom in it, and you had to load this little cart, they had [fol. 124] to load the groceries on that. That was his thought, so that distinguishes with that device)—a bottomless frame (C) on said portion (A) and within which the

merchandise is deposited and arranged, means (D) & (E) whereby said frame (C) is movable on said counter from said portion (A) to a position adjacent to the cashier's stand"—

Now, that means, as I interpret the claim, includes some sort of guiding device, and something that you can take ahold of to pull it. Now, I don't think, the claim doesn't say that the handle has got to be in any particular place, but there has got to be something on there that you can grab ahold of to pull the frame forward.

Now, in the films we showed you, you saw the checker grabbing ahold of the side rail of the frame itelf. There were no handles on it whatsoever.

The Court: Well, that would make exception of the incidents that I had in mind.

Mr. Beaman: That would distinguish your combination, your Honor.

This goes on further to state:

"—to a position adjacent to cashier's stand (B) so that the merchandise may be moved as a group to a point where it may be conveniently observed (that is, by the cashier or checker), counted and registered by the cashier, said frame (C) being open at the end adjacent to the cashier's stand (B) and readily movable, to be returned over said portion (A) (that is over the extension) so as to receive the merchandise of another customer while the cashier is occupied with a previous group."

Now, that claim is a very limited claim. It seems to describe everything that the witnesses have testified here about the operation of this invention. It is restricted to this bottomless frame construction, and without that this device [fol. 125] is not self-unloading. Mr. Bradley's device had a bottom in it and it wasn't self-unloading. That is why it became cumbersome. He had to get rid of those carriages in some way. But the essence of this thing is the fact it unloads itself. You put the groceries on the extension of the counter. They slide along the extension onto the counter, and then you unload the device without anything being done to what is being transported. And as Mr. Sobotik testified, you need a lot of space rearwardly from the cashier's point of operation to sort and prearrange the merchandise,

and it is for that reason when this device went into use in the No. 7 store, they had to modify their counters.

This is something more than just putting some kind of a pushing device on the counters they had. It is a new invention. And all the public use by other people that we have found involves something that is the equivalent of an extension providing certain means for this presorting, supporting this bottomless, three-sided pusher so you can presort, and then moving it up to the checking counter and automatically unloading it and putting it back for the next customer. That combination does not appear in the filing history of this case, and in my opinion it does not appear in any prior art patent that the defense have cited, or any public use.

The Court: Had you heard about the turntable or wheel before yesterday?

Mr. Beaman: I believe that I heard something about this wheel. Now, I don't remember the circumstances.

The Court: That is not a self-unloader anyway, is it?

Mr. Beaman: If I understand it, your Honor, it wouldn't be.

The Court: Mr. Bucher shakes his head and says it is. Does it unload itself?

[fol. 126] Mr. Bucher: There are two approaches to it. One is the turntable is round, and the divider swings on an axle, perpendicular axle, so it is all on a plane, it is all on the plane to start out with.

The other one was on a wheel with an actual bottom in it, where the checker, after it had been turned to her, just slid it off as the checker does.

The Court: With his hand, with his arm?

Mr. Bucher: Yes. Checked it out with this hand, and rings the register with the right one.

The Court: Isn't it true even with the pusher, the checker has to reach back and pull the groceries up a little bit?

Mr. Bucher: The principle is to have the merchandise brought down to what is considered the practical reach of the checker, a practical distance where she could reach with her hand, and still reach the register.

The Court: I have seen them myself reach over, when there are a lot of groceries, and push them up a little bit as they check them up, and put them over out of the way.

Mr. Beaman: Your Honor, I wonder if we could get into this record about when the wheel was developed? I have no information on it whatsoever.

The Court: I don't know as he knows when it was developed.

Mr. Bucher: I saw it on one of my visits to a store. When it was developed, I don't know.

The Court: How long ago did you see it?

Mr. Bucher: I saw it in about 1942 or 1943.

The Court: You don't know whether that is patented or not?

Mr. Bucher: I don't know.

Mr. Glaccum: I am sure it is not.

The Court: You would have seen something of it in the meantime?

[fol. 127] Mr. Glaccum: It was submitted to me for opinion as to its patentability.

The Court: May not some other attorney have taken a contrary view and brought it to the patent office?

Mr. Glaccum: If he did, it would be an independent source, because I handle all patent work for the Tea Company.

The Court: Is this an A. & P. store?

Mr. Bucher: Yes, your Honor, it was an A. & P. store.

The Court: Probably he was a manager that was going to have it on his own.

Mr. Bucher: It wasn't developed by a manager. It was developed by one of the maintenance people who worked in the store.

The Court: Was it in your division?

Mr. Bucher: No, it was in another division, but it was put in under the guidance of the local construction department.

Mr. Beaman: Your Honor, I would like to offer in evidence as Plaintiffs' Exhibits 4, 5 and 8, the correspondence with the defendant and its attorney, commencing August 23, the first letter, and the last letter September 7, 1944, relative to infringement.

The Court: Any objection?

Mr. Glaccum: No objection.

The Court: All right. You better read them, I don't know what they are.

Mr. Beaman: I am sorry.

Referring to the letter of August 23, 1944, addressed to the Great Atlantic & Pacific Tea Company, Graybar Building, New York City, New York:

"GENTLEMEN:

"Our firm represents certain parties holding patent rights which are being infringed by the counter pusher you have [fol. 128] recently installed in a great many of your super markets.

"At the present time we are in the process of formulating a licensing policy. It is our information your organization was the first to commercially adopt the improvement in question and that your leadership has been followed by at least one and perhaps more of your competitors. In view of this situation we would prefer to discuss this matter with the patent section of your legal department before serving any formal notice of infringement or attempting to formulate a license agreement which might be of interest.

"We would appreciate having you advise us by return mail of the name and address of the persons in your organization who handle matters of this kind. In this connection it is anticipated that perhaps this matter would be referred directly to some patent law firm outside of your organization with whom you entrust matters of this nature.

"Respectfully yours, Beaman & Langford."

That was written August 23, 1944, and was from the firm of Beaman & Langford, patent attorneys in Jackson, Michigan.

On August 30, 1944, the firm of Munn, Liddy & Glaccum, of New York City, wrote to the firm of Beaman & Langford in reply to this letter as follows:

"DEAR MR. BEAMAN:

"Your letter of August 23, 1944, addresed to The Great Atlantic & Pacific Tea Company, has been referred to this firm as their patent counsel.

"We note your statement to the effect that you represent [fol. 129] certain parties holding patent rights which are being infringed by the counter pusher employed by The Great Atlantic & Pacific Tea Company in their stores.

"In order that we may be better informed on the subject we would very much appreciate your advising us of the

number and date of issuance of the patents involved. We would then be in a position to discuss the matter further.

"Very truly yours, Munn, Liddy & Glaccum, by John H. Glaccum."

And on September 7, 1944, a reply was made to Mr. Glaccum, who was opposing counsel in that case. As a matter of fact, I wrote Mr. Glaccum as follows:

"GENTLEMEN:

"The writer was very pleased to be informed by your letter of August 30th, that your firm represents the Great Atlantic & Pacific Tea Company. Several years ago we had a matter involving the Dzus fastener patent up with you, and as a result I was very royally entertained by Mr. Dzus on Long Island.

"Several years ago Mr. Herbert N. Bradley, manager of one of the A. & P. Super Markets, brought to our attention a development in counter accessories which ultimately matured into United States Patent No. 2,317,438. Prior to the time A. & P. adopted its present counter accessory, which is covered by the claims of this patent, the development was taken up with the divisonal office. As to what extent A. & P. were encouraged to adopt their present counter accessory as a result of the disclosure of the Bradley device, we are not informed.

"In order to improve Mr. Bradley's licensing position [fol. 130] under his patent No. 2,317,438, upon our advice Mr. Bradley secured an exclusive license with the right to sublicense others under the Turnham patent No. 2,242,408. I believe you will find upon investigation that the counter accessory recently adopted by A. & P., Kroger and perhaps others, more closely approaches the specific form shown in the Turnham patent. However, it is our opinion that the accessory comes within the claims of both the Bradley and Turnham patents.

"Our client has only one desire and that is to encourage the adoption and continued use of counter accessories of the type now being widely installed in super markets. With this purpose and desire in mind, Mr. Bradley will shortly organize a company for the purpose of manufacturing, installing and servicing such accessories. The use of such installations will then be licensed at a nominal yearly royalty per counter.

"We have deemed it advisable to approach A. & P. first on our licensing thoughts. After you have had an opportunity to make a preliminary survey of the matter, we will appreciate an opportunity to discuss the question of infringement and licensing with you in detail.

"Respectfully yours, Beaman & Langford."

The Court: All right, anything else?

Mr. Beaman: Now, your Honor, we have the problem of getting into this record the deposition given by Mr. Buchoz up in Grand Rapids, and in connection with that I would like to offer in evidence Plaintiffs' Exhibit 3, which is another copy of this "Super Market Merchandising Magazine," the March 1947 issue, showing the design of this Turnham construction. It is an accumulation, your Honor, of the same thing in these various publications.

[fol. 131] The Court: Any objection?

Mr. Glaccum: I have no objection except that it isn't my understanding that this is in any way connected with any of the parties to this suit. It is just another——

The Court: Evidence of use, I suppose.

Mr. Beaman: It is evidence of commercial use, your Honor.

The Court: All right.

Mr. Beaman: Now, with reference to this Buchoz deposition, in Mr. Glaccum's trial memorandum here he made several references to what was testified by Mr. Buchoz, and in our opinion this testimony is important to this case, and I would like your Honor's suggestion on the most convenient way of getting it into the record.

The Court: Do you have two copies?

Mr. Beaman: I have two copies?

The Court: You have a copy too?

Mr. Glaccum: I have a copy, yes, sir.

The Court: I would suggest you act as the interrogator and let your associate answer; and then he can also answer Mr. Glaccum. And don't say "Question" and "Answer." Just go right ahead. For the time being, he is the witness.

Have you a copy?

Mr. Glaccum: That is my copy.

Mr. Beaman: The original is filed with the court.

The Court: Somebody take the original.

Mr. Glaccum: Wouldn't it be just as simple if we gave it to the reporter and let him copy it in the record?

Mr. Beaman: I would like to handle it the way you suggested.

The Court: The copy must be around here somewhere.

Mr. Beaman: We had notice it was filed by the reporter. [fol. 132] The Court: It may be in the courtroom, or in the clerk's office. Look in the clerk's office, and we will take a recess.

(Recess.)

Mr. Beaman: I would like to have the exhibits here that we demonstrated this Bradley construction marked as Plaintiffs' Exhibit 13-A, 13-B, 13-C and 13-D.

The Court: All right. Any objection?

Mr. Glaccum: I don't see it is particularly relevant, but I don't have any objection.

The Court: What are they?

Mr. Beaman: The extension and the little carriages that we used to demonstrate the Bradley construction and to show why it was cumbersome and didn't go into commercial use.

The Court: All right.

Mr. Beaman: This is the deposition of Roy A. Buchoz, and it was taken in Grand Rapids, Michigan, on March 21, 1947. Townsend F. Beaman, attorney, was present for the plaintiffs; and Mr. John H. Glaccum was present in behalf of the defendant.

The witness was first duly sworn by the notary to tell the truth, the whole truth, and nothing but the truth in the questions to be asked, and thereupon testified as hereinafter appears.

Deposition of Roy A. Buchoz:

(Questions read by Mr. Townsend F. Beaman and the answers read by Mr. Robert C. Williams.)

Direct examination.

By Mr. Beaman:

"Q. Will you please state your name? A. Roy A. Buchoz, B-u-c-h-o-z.

[fol. 133] "Q. And your residence? A. 1101 Fuller Southeast, Grand Rapids, Michigan.

"Q. And your age, please, Mr. Buchoz? A. Fifty-seven.

"Q. What is your present business connection? A. I am vice-president of the R. C. Allen Business Machines Company.

"Q. What type of machines do they manufacture? A. the R. C. Allen, you mean?

"Q. Yes. A. They manufacture adding machines, bookkeeping machines, calculating machines and low-priced cash register machines.

"Q. What were your business connections prior to your present associations? A. I left Burroughs Adding Machine Company on June first, 1946, having been with Burroughs approximately thirty years. I want to qualify that. I was away from Burroughs for approximately seven years, starting in 1923, leaving them at that time, and returning to Burroughs in 1930, I believe.

"Q. At the time you left Burroughs, what was your position with that organization? A. Well, the best title that I can think of is Sales Promotion in the Retail Division of Burroughs.

"Q. Would you briefly describe your duties and how you carried out that assignment? A. Much of my time was spent in travelling the United States and Canada, assisting Burroughs men in various branches in the promotion of all types of Burroughs machines, particularly those that were sold to retail establishments.

"Q. And what type of machines were those principally? A. Adding machines, low priced bookkeeping machines and cash register machines.

"Q. Were you contacting all types of retail establishments? A. Yes.

"Q. Did that include the retail grocery trade? A. Yes, from the very small type of retail grocer to the very largest concerns in the United States.

"Q. And with reference to the United States, how extensive were your travellings? A. I made everything in the [fol. 134] United States except the northwest section of the United States.

"Q. Going back now to during the period you were with Burroughs, when did your contact with the retail stores commence, Mr. Buchoz? A. Well, of course, Mr. Beaman, in all my experience with Burroughs, I was contacting retail establishments, all during those years from, let's say, April or May, approximately of 1931, I believe, from that

time on I spent a great deal of time with, let's say, concerns that could be considered to be in the food business, much of my time, and, of course, when the super market development started in Detroit—I can't remember exactly when—but during the low point of the last depression, when the first super market started there in Detroit, we became very much interested in that type of business, and from that time on, much of my time was spent in working in that particular field.

"Q. Now, in connection with your duties with the Burroughs Company, did you have an opportunity to become fairly well acquainted with the merchandising methods of self-serve markets? A. Yes. I think I could say that I was reasonably well acquainted with that. We naturally were very much interested in knowing what trends there were in the development of these markets from the standpoint of general layout, and naturally most interested in their operation of handling money at the checking counter.

"Q. What is your earliest recollection of the so-called self-serving grocery or market? A. My earliest recollection?

"Q. Yes. A. The first contact that I had with any super markets or that type of operation was in Detroit, as I say, about April of 1932, I believe it was, when that large Packers Market started on Second Boulevard. That was my first intimate contact with people who were merchandising on that basis.

"Q. Do you recall any self-serving grocery establishments prior to that time? A. Well, of course, there were [fol. 135] the Saunders operations, known as Piggly-Wiggly, which of course, had been operating for some time, but more or less on a small basis. When I speak of 'supers,' I am thinking of the very large warehouse type of grocery as it originally started. Of course, Mr. Saunders was supposedly the originator of the so-called self-serving method of operation."

Mr. Beaman: There is an objection here by Mr. Glaccum.

"Mr. Glaccum: I would like to note here an objection to this line of testimony on the ground that it has nothing to do with the case. It is entirely irrelevant and immaterial.

"Mr. Beaman: The purpose of this examination, or, at least, one purpose is to develop through this witness the

status of the self-serving grocery or retail establishments prior to the development of the invention that is in suit.

"Q. (By Mr. Beaman) Going on with the next question, in reference to this Saunders development, do you recall when that type of store first came to your attention? A. When it first came to my attention?

"Q. Yes. A. Well, I can't remember, Mr. Beaman, I just don't know. The first self-serve store I thought I saw in Detroit, I believe was in the twenties, 1923 or 1924, I believe.

"Q. Did you ever have occasion to call upon any of the people in these stores? A. Not as such, no; not as such.

"Q. In other words, not in a business connection? A. Not that I remember. I knew Mr. Saunders, but at the time I talked to him, he had given up his interest in Piggly-Wiggly, and of course, I called on the Kroger Company in Cincinnati who controlled the Piggly-Wiggly franchise—that was when I was with Burroughs, and they bought many Burroughs machines.

"Q. Could you briefly describe the layout that was employed in these Piggly-Wiggly stores?

[fol. 136] "Mr. Glaccum: I will renew that objection with the understanding that it goes for all these questions.

"The Witness: Do you want me to describe it?

"Q. Yes. A. Well, as I remember it, Mr. Saunders developed a plan whereby the customer was directed in his shopping by a certain type of, let's say, self display, so that the customer was obliged to make a full, let's say, examination of all items in the store, and when the customer arrived at the checkout counter in the early days, the items were added on an ordinary adding machine and the customer was given a receipt and the money cashiered in an ordinary type of cash register. That was the original way, as I understood it.

"Q. Do you recall whether the customer was furnished with any means of toting his groceries from the shelves to the counter? A. In the Saunders' operation?

"Q. Yes. A. I can't remember, but I believe that they may have had a basket. The basket carrier as we know it today is a fairly recent development.

"Q. But they did have some sort of a checking counter? A. Oh, yes, an adding machine, and cash registering equipment.

"Q. And do you recall how the customer approached and passed through that counter, what the layout was? A. I can't remember the design of the original Piggly-Wiggly layout, but as I remember it, there was an aisle, and the merchandise was taken from the basket and laid on the counter and listed and cashiered.

"Q. Can you recall just where the customer placed his merchandise with reference to the adding machine? A. Well, of course, they placed it on the counter, as I remember it. I don't know where else the customer would place it.

"Q. Was it directly adjacent to the—— A. To the adding machine and cash register, yes. The adding machine was on that counter and the cash register also.

[fol. 137] "Q. Would it be your recollection that the merchandise was placed directly adjacent to the operator of the cash register or the clerk? A. The clerk that was behind the checking counter that had an adding machine.

"Q. Mr. Buchoz, are you familiar with a publication known as 'Super Market Merchandising'? A. Yes, I have one right here.

"Q. I hand you the January, 1942 issue of 'Super Market Merchandising' magazine and refer your attention to pages 24 and 25. A. Yes.

"Mr. Beaman: I wish the reporter, for the purpose of identification, would mark this magazine as Plaintiff's Exhibit 1.

"(Plaintiff's Exhibit 1 marked by the reporter.)

"Q. (By Mr. Beaman) Would you examine the checking counter layouts on pages 24 and 25 and state whether you are familiar with what is shown there, or whether you have observed any one or all of them in operation? A. Well, let's see, on both of these pages—you are speaking about the photographs or these designs?

"Q. I am speaking about the photographs and also the designs, yes. A. This operation—you asked the question, have I observed it in use?

"Q. Yes. A. Yes, I have seen this.

"Q. The witness refers to the push-under checkout stand on page 24. A. This is in use here in Grand Rapids, or was a few years ago. In fact, the man who was credited with having designed it was here in Grand Rapids.

"Q. I refer you to page 24 and ask you if you are familiar with the so-called short-type counters illustrated on page 25."

Mr. Beaman: That should be corrected in there and by stipulation that should be 25 in both cases.

The Court: Make the correction then.

Mr. Beaman: That should read: "I refer you to page 25 [fol. 138] and ask you if you are familiar with the so-called short type counters illustrated on page 25."

"A. Please be more specific. What do you mean by the short checking counter?

"Q. Well, I have reference to the photograph on the left-hand side which is identified as a short type counter. A. You asked me if I have ever seen one exactly like this?

"Q. Of that general construction, yes. A. I have seen the general construction, but as to the exact dimensions and so forth, I don't know, but there are many of this type in use. Whether it is short or long doesn't make any particular difference, but the 'L' shaped counter has been in use for a long time.

"Q. I now direct your attention to a sketch on page 25 of Plaintiff's Exhibit 1, which is labelled, 'The Pre-Sorting Counter.' A. Yes.

"Q. And ask you if you have ever observed that construction in use anywhere? A. Oh, yes. Yes, sir.

"Q. Can you recall where you first saw that type of construction, Mr. Buchoz? A. The first time that I saw it personally was in Houston, and Mr. Turnham who was then with Mr. Weingarten showed me the first wooden model of the checking counter before it was used by the Weingarten Company. It was in one of his stores. There were three of them in use, I believe, at that time.

"Q. Do you recall when that was? A. The exact date, you mean?

"Q. The approximate date. A. I am very sorry, Mr. Beaman, I wouldn't know. Mr. Turnham knows when he put that in the store, and he could give you the exact date, if that means anything; but I would say—this is 1947—I would say 1932 or 1933—wait a minute.. Well, it was some time in the early thirties. I can't tell you when it was exactly, I don't know, I don't remember.

"Q. You referred to it as a 'model.' Do you mean by that that it was a small sized model or was it actual size?

A. It was actual size. It was in this store. It was actual size. You understand, I don't know whether it was the [fol. 139] same dimensions as the ultimate design took. I don't know anything about that, but I do know that he had the extended counter with the bottomless pusher arrangement.

"Q. And that was in one of the Weingarten stores in Houston, Texas? A. Yes, sir."

The Court: What did Mr. Turnham testify on that, 1929?

Mr. Beaman: Pardon, I didn't understand.

The Court: When was it he said he put it in the store the first time?

Mr. Beaman: Mr. Turnham?

The Court: Yes.

Mr. Beaman: He testified 1927.

Mr. Williams: 1937.

Mr. Beaman: 1937, and Mr. Sobotik testified 1937, and Mr. Weingarten testified 1937 or 1938.

The Court: This man said he saw it there——

Mr. Glaccum: 1932 or 1933.

Mr. Beaman: That was his recollection, your Honor. That is qualified as we go along here.

The Court: All right. I wondered if I had overlooked something.

Mr. Beaman: In the trial memorandum of the defendant, they make reference to this testimony on page 11 we just read.

Mr. Glaccum: Of course if that testimony is true, the patent is invalid because it wasn't applied for until October 1938, and that would be public use more than two years prior to filing of application.

The Court: You mean if they were using it in 1932, they couldn't apply for it in 1938, because it was in public use?

Mr. Glaccum: In public use for more than two years prior to filing.

Mr. Beaman: That is correct if that testimony stood——

[fol. 140] The Court: Unchallenged.

Mr. Beaman: Yes.

The Court: All right.

Mr. Beaman: But it doesn't even stand up in this deposition.

"Q. Was it being used at that time by the customers? A. It was being used—you mean by Weingarten's customers?

"Q. Yes. A. The original set-up as I saw it was this, that there was a man or a boy standing outside of the checking counter who took the merchandise from the customer's basket and put it in this arrangement for the customer. There were two people inside the checking counter, the checker and the sacker. The counter was a three-person operation at that time.

"Later, a year or two later, when I visited Houston, I remember on a very busy night, Saturday night, I believe it was, that the counter then was being operated by two people; and by that time, the customers had been trained to take the merchandise from the baskets and place it in this device. In other words, the third person had been eliminated, Mr. Beaman, at that time.

"Q. And you are referring now to the first installation of that type that you observed in any retail establishment, are you? A. The first installation that I observed that I had ever seen in my life was when Mr. Turnham showed me the store in which he was making the test of this particular device—I guess that is the only way you could put it. He was making a test of it to find out whether it was really practical.

"Q. At the time that you saw this counter pusher in Houston, were you travelling throughout the United States with the exception of the northwest territory? A. Yes, I was travelling practically all the time.

"Q. At that time, were you contacting stores similar to the Weingarten stores? A. Yes, sir.

"Q. Did you have any other connection with this development as far as your own business was concerned after that [fol. 141] demonstration? A. You mean, of which development?

"Q. Of the Turnham development. A. You mean, was I interested in selling the idea?

"Q. Yes. Did you have any—— A. No, except I will qualify that in this way, that naturally in the sale of Burroughs machines and because of the newness of the super market development, there was a keen interest by all operators of super markets and ideas that were being used generally speaking throughout the country. In other

words, if I went to Pittsburgh, the super market operation in Pittsburgh was greatly interested, either as a result of publicity that had been given in the operations in California or in Texas, and they would ask you, 'Have you seen this?' and 'Does it work?' and Mr. Albers in Cincinnati rolled his merchandise and many people wanted to know whether that was a good idea, and, of course, I wasn't a merchandiser. I sold machines, but wherever it was possible to help these men in their business, I did it, not pretending to be a merchandiser of food, because I am not."

Mr. Williams: The fourth line from the bottom of the page "and idea" should read "in ideas."

Mr. Beaman: That is by stipulation.

Mr. Glaccum: That is corrected by stipulation.

The Court: Make the correction. You have them there, haven't you?

Mr. Williams: I have the original.

The Court: Make the correction on the original.

Mr. Williams: All right, sir, I will do that.

"Q. Did you acquaint other people with this Turnham development? A. I acquainted them with it to this extent, that in my portfolio, after Mr. Turnham had developed this thing and it had been placed in one of his stores and our machines were on their counters, we had pictures, and I had pictures in my portfolio as well as many other [fol. 142] Burroughs men of this counter arrangement and, of course, in looking through our portfolios, in trying to find out the proper method of placing machines, the design of the counters and things of that kind, yes, they saw it. People would say, 'Well, what is that?' and we would tell them how the thing worked. Then they would ask me, 'Who has got it?' and I would say, 'Mr. E. D. Turnham down in Houston has it,' and we would tell them to write to him. He probably has in his files—I am not sure about this—letters from many people that I might have told about this particular thing, but as far as promoting it for a fee or anything of that sort, we had nothing to do with that.

"Q. Would you say that you exhibited those photographs to a considerable number of persons in store establishments? A. I would say—well, I haven't the slightest idea how many. It was one of the many pictures that I had in my portfolio, and many people saw it. Incidentally at

super market conventions where we showed for a number of years these pictures, of course, they were always available to anyone that wanted to look at them along with many other pictures of other installations.

"Q. To your own personal knowledge, has there been a use of that type of construction, referring now to this counter pusher that you refer to as the Turnham, spreading throughout the country? A. Very recently, very recently I have noted it in use in many places, Mr. Beaman. For two years and a half, I was on war work for Burroughs and previous to that I was working on United States government projects throughout the country, and so therefore, I have had no really intimate knowledge of what is going on in the food field except on the tours that I make with my wife, and of course, I have been getting food publications, because I am greatly interested in that business, and as a matter of fact, I picked up this one this morning and I thought you would be interested in it. It is the strangest thing, the brand new one just landed on my desk this morning and——

[fol. 143] "Q. What magazine is that? A. That is 'Super Market Merchandising' magazine of March, 1947, and I just opened it up and there was the story of the pusher thing in Philadelphia there.

"Q. Referring to page 168? A. Yes.

"During the past year——"

The Court: Where is that magazine? Wasn't it introduced in evidence here awhile ago?

Mr. Beaman: Yes, your Honor.

(Magazine handed to the Court.)

The Court: All right, go ahead.

"Q. During the past year, Mr. Buchoz, have you had occasion to travel in your business away from Grand Rapids? A. Yes, I have.

"Q. Do you call upon these retail grocery stores? A. Not at this time, no. I want to qualify that by saying that it hasn't been necessary. Our work, in the building of our business, my time has been confined to the branch management and things of that sort.

"Q. Referring back to pages 24 and 25 of this January, 1942 publication, 'The Super Market Merchandising,' from your observations, could you make any comment as to which of the three different types of counter constructions

shown there have gone into most extensive use? A. My answer to that would be, as I said a moment ago, I am familiar with the stores that I have called on to shop for our own use—the Buchoz family use, and in many of the stores I have gone in, I have seen some adaptation of this type of counter design.

"Q. Are you referring now to the Turnham development? A. I am referring now to the pusher type. I don't know that it is the Turnham because the dimensions and design and the various features of it—I don't know whether it is exactly the same as the Turnham or not.

"Q. But you are referring now to the type that is illustrated on page 25 as the pre-sorting counter? A. Yes, [fol. 144] and the reason for my answering that way is because I lived in Detroit and, of course, many of the concerns there are using this.

"Q. That is in Detroit? A. In Detroit."

The Court: Page 25?

Mr. Williams: Of the January, 1942, issue, your Honor.

Mr. Beaman: It is this device here, and on page 26 is a description of it, its use.

The Court: What do they called this, the short type counter?

Mr. Beaman: No, your Honor. In that illustration on page 25 there are two different constructions. This on the left-hand side of the page is called the short counter. There is no pusher arrangement on it. There is nothing to facilitate the movement of goods over the counter.

The Court: Is that a new kind of arrangement?

Mr. Beaman: Apparently they have shortened up the counter.

The Court: Is this one right here?

Mr. Glaccum: They shortened up the counter to save space.

The Court: Is that one right here?

Mr. Beaman: Yes. Yes. There is an illustration and also a photograph, what they call the short counter. There are no devices of the type in suit.

The Court: It doesn't save time?

Mr. Glaccum: No.

Mr. Beaman: There is no time saving.

The Court: Wasn't that exactly the way it was before this thing came in?

Mr. Beaman: Except it is shortened up.

Mr. Glaccum: There has been considerable development and improvement, continuous changes in the check-out counter.

[fol. 145] Mr. Beaman: I would say that was typical of counters used before this development came along.

The Court: All right. Of course, here is this presorting counter and this one is on a hinge. That could be a hinge, couldn't it?

Mr. Glaccum: It would look that way, as though it were collapsible.

Mr. Beaman: I think Mr. Turnham testified his first one was on a hinge so they could let it down out of the way except during rush periods.

The Court: All right.

"Q. And what about Grand Rapids? Have you observed any of those in Grand Rapids?"

The Court: What are you referring to now?

Mr. Beaman: To this Turnham type construction, your Honor.

The Court: All right.

"A. I have been in one super market, Eberhard's, I bel-eve, here, and I have observed it there, yes, sir.

"Q. I call the witness's attention to a photograph, constituting a part of defendant's answer to interrogatories——

"Mr. Glaccum: So that the record may be clear, the defendants stipulate that this photograph is an actual photograph of an installation in one of the defendant's stores."

The Court: That has been shown here, hasn't it?

Mr. Beaman: That is Plainitffs' Exhibit 2, I believe, your Honor.

The Court: I remember.

"Q. And I would like to have you carefully examine that, if you would, please. A. Yes.

"Mr. Beaman: And I ask the reporter to mark this photograph which is a part of defendant's answer to interrogatories, as Plaintiffs' Exhibit 2.

[fol. 146] "(Plaintiffs' Exhibit 2 marked by the reporter.)

"Q. Would you describe that construction shown in there with reference to its application to counter checker installations? A. You mean for me to describe it as I understand it and as I have seen it operate?

"Q. That is right. A. The customer approaches the counter and removes the merchandise from the bascart and places it on the counter within the dividers—that is the only word that I can think of for the pusher arrangement—or within the outside—what would be the proper way to describe that? Within the——

"Mr. Glaccum: 'Confines.'

"The Witness: Confines. That is a good word—within the confines of the upright movable device. That is all I can think of, and in this particular setup, the owner of this business has made it easy for the customer to sort the merchandise as it is placed on the counter as to groceries, meats, fruits and vegetables and delicatessen items. I am not sure about this because I can't read it clearly from the photograph, but when the customer sorts the merchandise as directed, the work of the cashier is expedited—is tremendously expedited, because the cash registering machine is so designed that it will furnish a total of groceries, meats, delicatessen items, and so forth, and naturally if the merchandise is properly arranged, it is easier to cashier it."

Mr. Beaman: Your Honor, the witness is testifying now with reference to the photograph of defendant's device.

"Q. Would you examine this photograph, Plaintiffs' Exhibit 2, and state whether there is what you referred to as an extension when you had reference to the Turnham development? A. In the design of this counter, Mr. Beaman, this counter is completely closed. The original plan that I saw in Houston that Mr. Turnham showed me was definitely an extension as the design shows on page 25 in [fol. 147] 'Super Market Merchandising' of January, 1942. Later I saw the picture of the Houston stores, and the counter was extended.

"Q. I believe that there is a leg construction shown, supporting the rear end of the surface upon which the groceries are placed. Do you observe that in this photograph? A. It doesn't look like a leg to me, and although it may be, I

this checking. So again I repeat, when all the stands are full, like they are on many days, in the interest of putting the customers through there as quickly as possible, we have three different set-ups, as we call it, one person on a stand, two people on a stand, and three people on a stand. The cost is proportionate.

The Court: Those people part-time workers?

A. In some instances.

The Court: Saturday they would be there all the time?

A. The checker is a full-time person in 95 per cent of the instances. These other persons are in many instances casual help, as we call them, which might be part-time, and other instances they are full time. At certain times, maybe the forepart of the week, we use full-time checkers to do certain jobs in order that they would be trained and available to do the job of checking at the end of the [fol. 164] week. We might have a store with, we will say, ten or eleven check stands, and during the forepart of the week there might be only five or six of those stands in operation.

The Court: Have you thought about putting in the express—what would you call them?

A. Express check stand. We are familiar with it and have used it on an experimental basis, and have discouraged its use because the very thing you attempt to do there, that is to provide for the person to go through the stand quickly, creates difficulty and misunderstanding in the store for this reason: Here is a stand over on one end of the store that has a sign over it saying: "Express Check Stand." Maybe there are six stands in the store, five of them are in operation. This is the express stand. A person with two or three packages comes up there and goes out. These people lined up over here may have ten or fifteen dollars worth of merchandise and they constantly complain about why should the management give more consideration to the person who is only spending a dollar than other customers who are over here spending five, ten or fifteen dollars?

The Court: But he is only spending a dollar at that particular time. The chances are he is a customer whose family comes in and spends four or five or ten or fifteen dollars.

A. I am very familiar with this because we have had it discussed dozens of times, and put them in our various

units, only to find that slowly they fall by the wayside.

The Court: If you had it on a different door so the other fellow doesn't see it. I know I don't go in one of these pla es because I have to wait too long for people with big orders, and all I went in for happened to be three bottles of ginger ale, and I had to stand there in line for about an hour. An hour is nothing in one of these stores on Saturday, at least it seems an hour. Why shouldn't I be able to go right out the door and I am out of this man's way?

[fol. 165] By Mr. Glaccum:

Q. Mr. Bucher, is customer annoyance in waiting one of the big problems of super market maintenance or operation?

A. That I think would be generally agreed as one of the biggest problems in the super market. I don't like to just talk at random here.

The Court: You started to describe this. I may have gotten you off the track from what you intended, so you can get him right back on quick.

A. But may I say this, in a super market the principle is that the person picks up his own merchandise in a store. In a given week, let us say, there would be twelve thousand, let us say, customers who are picking up their own merchandise in the store. When it is busy, those twelve thousand customers must funnel themselves down to some place in the store where some employee again handles every single commodity that the twelve thousands customers picked up at some time during the week. So that mathematically it is bound to be a problem, and for that reason I think the entire industry has probably given more thought to that phase of it than anything alse in the market.

The Court: You probably have yourself because that is right in your division.

A. Yes.

The Court: You are always continuously on the alert to improve that checking out system. That shows what has happened. I can see how easy that works and then I say to myself, "Well, why is it somebody didn't think of that one before, they were losing good square feet there?"

A. Thirty-eight inches by twenty.

The Court: More than that.

A. That was what was lost in space at that place in the store that is at a premium. Cigarettes at one time were up here on a little stand. In order to again speed up the operation the cigarettes were removed so they didn't distract and take up the time of the checker.

[fol. 166] The Court: Of course, these checkers are remarkable. I don't know how they do it, they do it though.

By Mr. Glaccum:

Q. Have these improvements and general changes that you have been referring to solved the problem as to getting the customer out of the store, or do they still pile up?

A. They have improved the picture, but it is still a problem and it is obvious when we still see crowds in back of the check stands.

Q. And a simple matter like putting cigarettes some place else in the store would have a tendency to speed up the operation of a check stand?

A. It takes a little less time from the checker, allows her to devote more time to actually doing the checking.

Q. It is true, is it not, Mr. Bucher, that during the past ten years the entire operation of super markets has been changing gradually to improve the service?

A. As I said before, there has been a constant change. The super market was new to many people. It was new to us. We became involved in what I consider as a super market era and it was necessary that we change our complete method of merchandising, merchandise methods that we had used for many years, so we went into it using the best judgment we could by trial and error methods, changing constantly, changing from day to day to the present time.

The Court: Wasn't there a super market went in in Saginaw before 1937, the fellow that has the Park-and-Shop, you know where your West Side store is, around the corner there. What was the name of that? I used to be their attorney.

Mr. Beaman: A home-made company, Park-and-Shop, I think it was.

The Court: Park-and-Shop.

Mr. Bucher: We went into Saginaw either in 1937 or 1938.

The Court: With a super market?
Mr. Bucher: Yes, on Genesee Street.

[fol. 167] By Mr. Glaccum:

Q. Mr. Bucher, I show you a set of photographs and ask you if you will please tell us what they are?
A. These are rather coincidental, your Honor, pictures of a store in Saginaw that were taken about the time that store was opened, which was in 1937 or the forepart of 1938.
Q. Those pictures show a super market as it existed in 1937, that is of the Tea Company.
A. That was our thinking of super markets at that time.
Q. The general type of equipment, and shelving, and so forth?
A. Yes.

Mr. Glaccum: I would like to offer the set of photographs in evidence.

The Court: Is this the Saginaw store?
A. That was the Saginaw store in 1937.
The Court: On West Genesee?
A. Yes.
The Court: Was that a serve-yourself then?
A. Yes.
The Court: 1937. Well, the Park-and-Shop must have been there before that, must have been there in 1936 because they were there before you were. Isn't that strange I can't think of the name of the fellow who runs that?

Mr. Beaman: They have a store in Jackson, too.

(Defendant's Exhibits C-1, C-2, C-3, C-4, C-5, C-6, C-7 and C-8 marked.)

Q. I show you Defendant's Exhibit C-4 and ask you if that shows the check-out counter and the baskets used at that time?
A. Yes. That is in the same store.

The Court: I did not see that check-out counter.
Mr. Beaman: Mr. Glaccum, what time is this you are talking about?
Mr. Glaccum: 1937. All these photographs are the same store in 1937.

The Court: Where does the customer stand? Is this where the customer stands, right there?

[fol. 168] A. Right between this rail and that counter.

The Court: The girl is in here?

A. Yes.

The Court: The girl is in here. This is the old one?

A. That is the old one.

The Court: All right. I come in here, put my groceries right there, check them, and put them in a bag and go out.

A. That was the old way.

Q. I hand you a folder of pictures and ask you, please to tell us what they are.

A. This is a group of pictures of, I would say, the first new store that we have installed since the war. This was open along about the middle of 1946 in St. Matthews, Kentucky. St. Matthews is a suburb of Louisville.

Q. And does that show the type of equipment, lighting and other features that are used today?

A. This was considered the modern store at the time these pictures were taken, it was considered the latest thing in super market. Since then there have been some additional changes.

The Court: Now, how much floor space is that?

A. In this store there is around thirteen thousand four hundred feet on the first floor.

The Court: Is there an upstairs?

A. There is a balcony in the rear of the store in which the rest and toilet rooms are located. That is a mezzanine on the second floor. This is a picture taken at night with the lights out, and this is a picture taken at night with the lights on.

The Court: Are these the check-out places here?

A. Yes. That is the check-out counter. Since that time the check-out counter has again been changed, as I po-nted out here. We have narrowed them down to a point where we now get six stands where we formerly were able to get five.

[fol. 169] The Court: Narrowed them?

A. Narrowed two things, the area in which the customer walked and the width of the stand itself, just a matter of inches.

The Court: I notice here you practically have that railing along the whole length of the side?

A. On the outside, yes.

The Court: So the groceries don't fall off.

A. We formerly had the railing on the inside and when we first developed the conveyor, our so-called pusher, we found the cashier couldn't slide the change off.

The Court: What kind of ceiling is that?

A. That is an aluminum ceiling, natural aluminum. That is the first one in any market in the country.

The Court: What is that for, the light?

A. No. It is for two things. It's main purpose is reducing the current maintenance. They maintain that ceiling is impervious to time and will not need to be painted but can be washed.

The Court: How about reflection of the light? Does it help in the lighting effect?

A. The reflection is good, as you can see, with fluorescent lights on.

Mr. Glaccum: I would like to offer that book of pictures as Defendant's Exhibit D.

Mr. Beaman: No objection.

The Court: All right, it may be received.

(Defendant's Exhibit D marked.)

Q. Mr. Bucher, a comparison of Exhibit C shows an average super market in 1937, and Exhibit D shows the various changes that have been made in super market operations generally?

A. That would indicate most of the changes. They are apparent by making comparisons. In other words, it is necessary to look back to 1937 to realize how far we have gone since that time.

Q. You say these changes were made suddenly or gradually?

A. They were made consistently, practically day by [fol. 170] day. It would seem we would hardly open one market before we got another idea, and we incorporated the new idea in the new market.

Q. Would you say that was equally true of various facilities of the store as well as the counters?

A. That was true of the store in general, including the building; there was a general transition.

The Court: Well, of course, that is true of every building and every business. That doesn't necessarily mean

that something that is radically new can't be an invention, does it? The point was brought out here yesterday that this eliminated one person who formerly stood at the end and helped with the baskets. Do you remember that?

Mr. Glaccum: It may or may not.

The Court: That is what I am thinking, it may or may not.

Mr. Glaccum: It depends on the amount of traffic, I believe, your Honor, and then whether or not the operator is willing to add a little additional expense to give the customer greater comfort. Is that correct?

A. Yes. And in principle, it means that the customer in taking merchandise out of her basket and placing it on the counter was merely doing in reverse what she did when she came into the store.

By Mr. Glaccum:

Q. Do you maintain a department, or employees, for the purpose of improving your stores and equipment?

A. Yes.

Q. Would you describe, please, the character of that organization?

A. Well, our approach to the super market in this division is from a generalized, standard approach. These instructions funnel through one point as standards are developed. Ideas come from many sources, any one of our employees in any branch of our business. The development of the idea of the practical usage comes through the [fol. 171] engineering, or maintenance and construction department.

Q. Is that under your jurisdiction?

A. Yes.

Q. And that is maintained at all times?

A. Yes.

Q. To make any improvements and studies.

The Court: There isn't any question but what this pusher has improved the efficiency and speed of taking care of the lines, is there?

A. No. It is obvious.

Q. As far as you know, what was the first time that you put the pushers in your place?

A. The first pushers we put in were immediately after the conveyor, and that was in 1942, right around the fore part of the year, I would say around April or May.

The Court: You hadn't heard or seen the so-called Turnham?

A. I had not.

The Court: It hadn't been called to your attention?

A. No, it had not.

The Court: You heard him say they started in 1937?

A. I did.

Q. I understand that you made a study as to number of people operating this counter in the operating of the Grosse Pointe store. Could you tell us about that?

A. Well, I am not in position to quote any figures on the Grosse Pointe store other than there in one of the first instances we used three people on the stand in order to get the customers through rapidly. Is that what you are referring to?

Q. Yes. You did a large volume of business?

A. Tremendous volume in a limited area.

Mr. Glaccum: I have no further questions.

The Court: I suppose that the next thing that bothers you people, outside of that, is the parking business, isn't it?

A. Yes.

[fol. 172] Cross-examination.

By Mr. Beaman:

Q. Mr. Bucher, referring to the picture of the store in 1937, in this photograph, Defendant's Exhibit C-8, there is no device on that counter to move, or transfer, or convey the goods or purchases from one point to the other, is that correct?

A. There is not.

Q. There are no such accessories?

A. There is not.

Q. And referring to these photographs in 1946, of this new store, calling your attention to the checking counters, does that show construction that is comparable to Plaintiffs' Exhibit 13?

A. It would appear quite similar.

Q. I believe you stated it was your job, or part of your job to continue with the modernizing and improvement of your stores, is that correct?

A. The development is under my jurisdiction, and the changes funnel through the operating end of the business.

Q. Would it be part of your duties to be on the alert for all improvements that might be made anywhere in your particular field?

A. To the best of my ability.

The Court: You can't go all over the United States though, can you?

Q. Do you attend any conventions, or association meetings where they discuss the problems and solutions of food merchandising?

A. I do not.

Q. You have never attended any such meetings?

A. I have not.

Q. Do you take any of the trade journals?

A. I read them. We have them in our offices and I read them whenever I get to it.

Q. Do they come across your desk?

A. Occasionally they are available to me.

Q. And could you name some of the trade journals that deal with food merchandising?

A. Well, there is the "Chain Store Age," there is "Super Market Merchandiser." That is two that occur to me.

Q. And how long have you been taking or seeing these [fol. 173] magazines you have just mentioned?

A. Oh, for probably four years. I did not say I took them. I said they were available to me.

Q. How long have you been in your present position?

A. Since 1941.

Q. Can you recall whether or not these magazines were going through your department at that time?

A. They were available at that time.

The Court: Who was the maintenance man that preceded you?

A. Mr. Burlingame. He has passed away.

Q. I hand you a copy of the "Super Market Merchandising," the January issue, 1942. Isn't it possible that you could have seen that disclosure of this pushing counter?

A. I might have.

Q. You wouldn't deny that you didn't see it?
A. I don't recall having seen it.

The Court: Is there any question here about where they got the idea?

Mr. Beaman: Your Honor, I think throughout the examination of this witness and others, and the cross examination, that there is an attempt being made to at least intimate, or suggest that this development was independent and original with the A & P Company.

Mr. Glaccum: We made no such intimation.

The Court: I didn't think so. I think they admit that, wherever it came from, they adopted or got it.

Mr. Glaccum: We don't deny that it was well known. On the contrary, we say that everybody was using it, and there are several indications that they arrived at it independently. Here in this one exhibit we have the National Cash Register furnishing drawings of a presorting counter.

The Court: I don't think they claim that the idea did not come from you people.

[fol. 174] Mr. Glaccum: We frankly don't know where it came from.

The Court: It came from so many places, the first thing they knew they were doing what everybody else was doing. That is their position. They don't deny it or admit it, but they do admit it was pretty well known in the trade, and, I think, had appeared in trade journals.

Mr. Beaman: That was their position but I got the wrong impression. I am sorry. If that had been the case I wouldn't even ask the question.

The Court: Mr. Bucher, if he didn't see it, may have had it called to his attention, may have had yours called to his attention. They made some improvements on it though.

Mr. Beaman: I have no further questions.

The Court: Any other questions? Have I stated your position correctly?

The Witness: Yes, your Honor.

Mr. Glaccum: I have only one further question.

Redirect examination.

By Mr. Glaccum:

Q. Even with all these improvements, do you still have people standing in line in your super markets?
A. Yes. That is still a real problem.

The Court: Won't there always be unless you have a check booth for each person that comes in? And in the old days they certainly were standing in line in the groceries, not standing in line but hanging around there waiting for the clerk to wait on them, weren't they?

A. Yes. More so, I would say, in reality than they are spending now waiting.

The Court: Well, except on Saturdays. That is the only time I get a chance to go into them.

Mr. Glaccum: That is all.

[fol. 175] I would like to offer in evidence as an exhibit certain of the patents referred to in the file wrapper of the Turnham patent.

The Court: You mean in the file?

Mr. Glaccum: Referred to by the patent office. They were cited by the patent office during the prosecution of the application.

The Court: How many are there?

Mr. Glaccum: I am only offering three of them.

The Court: They are mentioned in the file wrapper?

Mr. Glaccum: Two additional ones were mentioned in the file wrapper.

The Court: Are you mentioning any additional ones other than those in the file wrapper?

Mr. Glaccum: Oh, yes, your Honor.

The Court: You are?

Mr. Glaccum: Quite a few of them.

The Court: How many?

Mr. Glaccum: I don't really know the exact number but there are approximately ten or twelve.

The Court: That were available to the examiner and so far as the file wrapper shows, he never even looked at them?

Mr. Glaccum. He never even looked at them, as far as the file wrapper shows.

The Court: I think the position of the plaintiff is he didn't look at them because they were not material in this case.

Mr. Glaccum: I intend to point out where they are material, if you will bear with me.

Mr. Beaman: Your Honor, in the mechanics of the patent office, they only note the pertinent ones. There is nothing you can determine from the file wrapper which

patents they looked at and did not note. It doesn't appear from that record.

The Court: You would know from the file wrapper that [fol. 176] those that appear in the file wrapper he must have looked at.

Mr. Beaman: Yes, that is right.

Mr. Glaccum: Because of the fact he looked at them and still issued the patent, doesn't necessarily mean it was valid.

The Court: Oh, no.

Mr. Glaccum: Every day patents are invalidated by the courts over the file wrapper.

Mr. Beaman: Your Honor, there is one thing I neglected to mention this morning. Inventions of the same type, relating to the same type inventions, are all examined by the same examiner. In theory, at least, he is supposed to become an expert in his line. That is not generally known, at least, to the public. People don't realize how that functions. But the examiner is assigned a certain classification, certain types of inventions, and the prior art, or pertinent art of that character are supposed to be grouped around this examiner, and in his work he is supposed to go through that type of prior art in examining the applications.

Mr. Glaccum. It appears often that there are pertinent patents not properly classified in this particular subclass.

The Court: Yes. He can't remember them all.

Mr. Glaccum: I will offer in evidence book of prior art cited by the patent office.

Mr. Beaman: I have no objection.

The Court: These are cited by the patent office?

Mr. Glaccum: That first exhibit, yes, sir.

The Court: It may be received.)

(Defendant's Exhibit E marked.)

Mr. Glaccum: Also offer in evidence prior art not cited by the patent office against the Turnham patent.

Mr. Beaman: Mr. Glaccum, are these patents noted?

[fol. 177] Mr. Glaccum: They are all patents of which you have notice.

Mr. Beaman: Either in the answer or in the interrogatories?

Mr. Glaccum: In the interrogatories, all noted in the interrogatories.

(Defendant's Exhibit F marked.)

Mr. Beaman: Just as a matter of pleading, shouldn't an amendment be made to your answer on those?

Mr. Glaccum: No. I think the rule just requires twenty days' notice.

The Court: I won't stick on technicalities.

Mr. Beaman: I am not interested in that, as far as we are concerned. They are in the ——

Mr. Glaccum: They are in the interrogatories in any event, answers to the interrogatories.

If your Honor will refer to Exhibit E, which is prior art patents cited by the patent office, you will notice that the first patent cited there, the patent to Hager, shows a cabinet with a rack that runs along on a little trolley so that you can place a scale or other equipment on it for ready use. They can mount a scale or other equipment on there as shown in the second sheet so they can operate from these various cabinets.

The Court: You mean in these furniture stores where it hooked onto the traveling ladder, is that what this is?

Mr. Glaccum: No. It isn't a ladder, it is a platform or rack that travels along on the cabinet.

The Court: Yes. What for?

Mr. Glaccum: Well, to support a scale or anything, I guess, they want to put on there. It shows what appears to be a scale in Fig. 2.

The Court: I see. Rather than carry it, is that it?

[fol. 178] Mr. Glaccum: It acts as a carrier or traveling rack.

The next patent Rorrer, cited by the patent office, shows a somewhat similar arrangement with a track and two rails.

The Court: Rorrer patent?

Mr. Glaccum: In the Rorrer patent. That patent, I don't think is terrifically important, but it shows the two rails and counter, the guide trays and other data.

In the Harvey patent, cited by the examiner, we have a little wagon with wheels on it.

The Court: Which one is that?

Mr Glaccum: Harvey is the third one there. If your Honor will look at Figure 4, it shows a little wagon with wheels, that purports to be used in a self-service store.

The Court: Is that on a track?

Mr. Glaccum: That is on a little track.

The Court: A self-serving store?

Mr. Glaccum: That is right.

The Court: What kind of a store? This is back in 1918, must have had self-serving stores back there.

Mr. Glaccum: Well, the testimony was Mr. Weingarten had his in 1919, he started in. The art cited by the patent office shows it was to provide means in a self-service store to carry material from place to place, either by a track or otherwise.

Mr. Beaman: Mr. Glaccum, have you included there this Storch patent 1,494,640?

Mr. Glaccum: No, I believe I have inadvertently included that in the wrong group. I have it in here.

Mr. Beaman: There is another patent, your Honor, that was cited by the patent office and wasn't included, apparently. In my opinion it is the most pertinent.

[fol. 179] Mr. Glaccum: We have it in this other book.

The Court: Anyway, all of these patents just put something on wheels, that is all they have done, to facilitate getting around the store, or getting around.

Mr. Glaccum: Along counters and different places.

The Court: Yes.

Mr. Beaman: There is another patent cited by the patent office that I think should be placed in that exhibit if it is going to represent an exhibit of the patents that were cited by the patent office.

The Court: Which one is E? Is E those that were cited?

Mr. Glaccum: E are the ones that were cited.

The Court: Cited by the patent office?

Mr. Beaman: Yes, but it is not complete, they have omitted the most important patent.

Mr. Glaccum: They cite some additional patents.

The Court: Now we turn to the next one.

Mr. Glaccum: The next one is Exhibit F, and the first patent there——

The Court: These were not——

Mr. Glaccum: Not cited.

This shows a cashier's protection device, a very simple rack whereby the one end is always closed. The cashier will push out the rack and the end nearest him will close, the customer puts his money on the rack and that end will close, and it is pulled back in, the rack sliding on the counter.

The Court: Let me see, that is that Marois?

Mr. Glaccum: Marois patent.

The Court: Where does he stand there?

Mr. Glaccum: As you look at Figure 1, the cashier would stand right by the drawer there, and as he pushes that rack out, the lid nearest him marked "11" closes.

[fol. 180] The Court: Wait until I see where 11 is. Oh, yes, closes.

Mr. Glaccum: And the lid on the other side, as show- in Fgure 2, 10 will open. The customer will place his money there or pick up his money, whichever it happens to be, and he pulls it back and the opposite works. They stick their hand under the glass and grab the money.

The Court: Do they use that?

Mr. Glaccum: I don't know. I have never seen it in actual use.

We move along to the next patent of Varnum. We have our three-sided open rack answering the claims of the Turnham patent, which is used in this instance to put pool balls in place, billiard balls. In other words, Varnum has a billiard rack that opens in the front, and it constitutes a three-sided bottomless rack.

The Court: Did he get a patent on that?

Mr. Glaccum: He did, back in 1929. I don't know exactly what his claims call for.

The Court: What good is that thing?

Mr. Glaccum: Why, after they set the balls up, he opens the rack instead of having to lift it off, and just slides it away.

The Court: Well, that extra effort in a pool room is certainly to be considered. That is very important.

Mr. Glaccum: There is another one, the next patent, Dickinson's.

The Court: I don't know as that would be very accurate.

Mr. Glaccum: I have my doubts but it certainly is a three-sided rack.

The Court: Here is another, here is a Dickinson pool ball frame.

Mr. Glaccum: Dickinson has one. That Figure 4 shows the rack as being hinged and capable of opening. In that [fol. 181] one they roll the balls down that little surface 6 into place. It is a felt platform marked No. 6, and the patent describes the pool balls can be rolled down that platform into place. That is another great invention. In a thing as simple as this, it is necessarily of not great complexity.

The Court: Well, he got a patent on that, didn't he?

Mr. Glaccum: Back in 1914, yes, your Honor.

The Court: At least you don't know whether it was ever challenged or not, or do you?

Mr. Glaccum: No. It is not of any moment.

The Court: Well, they are cited by you as some of the things that he should have considered. It must have been of some moment. You aren't doing this just to make me look at some figures?

Mr. Glaccum: No. It shows the structure we claim the patent covers, it shows the open rack, bottomless rack.

Mr. Beaman: Of course, your Honor, we don't agree with that contention at all, that any of these patents that have been cited met the claims of this case.

Mr. Glaccum: They do show this, when these people wanted to move different items from one place to another they made up a rack of suitable dimensions that they could push them along and put them in place.

The Court: All right.

Mr. Glaccum: The same with the Arnold patent. Arnold is a grocery store appliance which has a rack or tray shown in Figure 7 that is designed to push merchandise out. As the customer takes the outside row off the shelf, this will push another one into its place. There are spring means there to move it along.

The Court: Is that the way that works?

[fol. 182] Mr. Glacuum: Yes, your Honor, I believe that spring is 13.

Mr. Beaman: The store clerk pulls those out by hand against the tension of the spring. As they are used up he reaches up and pulls the lever, as the first can is taken out he pulls the lever out to bring it up to the next notch, but there is a spring to retract it.

Mr. Glaccum: But again it is another means of moving merchandise.

There was another patent, Rorrer patent, which was cited by the patent office, the same inventor, he provides rails or tracks shown in Figure 4—29.

The Court: Figure 4.

Mr. Glaccum: To guide the tray or other containers to be slid over the counter, in the same way as the outer rails in this device.

The Court: You mean around the store?

Mr. Glaccum: That is right.

The Court: Well, it is just like going into a serve-yourself restaurant where you put your tray on and keep pushing it, sort of guide it along there.

Mr. Glaccum: A well-known cafeteria comes right in the claim too of this patent because you go along the cafeteria and pick up your items, you have your sliding surface, you have your cashier's counter, and, see, we have a cashier's counter in a cash-and-carry type grocery. It doesn't make any difference whether it is a grocery or cafeteria, it is food, and they are very closely allied. There is a cashier's station, which you have in the cafeteria, a portion of the counter to receive merchandise being purchased, and means to slide up on the surface of the counter, to enclose and move such merchandise to the cashier's station. The means is your tray, and that would be infringed, your Honor, by putting a basket on the counter and moving it there.

[fol. 183] Mr. Beaman: Your Honor, Mr. Glaccum was talking about Claim 2. We are relying on Claims 4, 5 and 6, as more clearly defining this invention. And Claim 2, which we haven't discussed and don't intend to, he is putting an interpretation on the language of that claim that apparently was not intended by the patent office, the word "enclose" in there, and a tray in a cafeteria doesn't enclose. You put your food on the tray the same as you would this little cart, and it rests on the surface. The word "enclosed," I believe, was intended to define this U-shaped, or bottomless slide.

Mr. Glaccum: It is only a question of degree as to how high the rim on a tray is, and how high the sides of this pusher are. And certainly the other example of putting a basket on the counter and moving it along, the basket does enclose it, that we can't deny.

The Court: Suppose they put their basket on that extended counter and the girl reached over and pulled the basket down, does that violate it?

Mr. Glaccum: That would certainly infringe that Claim 2.

Mr. Beaman: The principles of operation here don't take into account whether there is a bag or basket or a box. If you put a can of soup on the extension, of course, the soup is surrounded by some kind of tin can. The article that is being moved doesn't determine the novelty of this device. It is the combination, or relation of parts and its function that was patented, and was considered by the patent office.

You have to look at these claims to see exactly what was patented.

The Court: Read your Claim 6 and let us see. Was it Claim 6 or Claim 4.

Mr. Beaman: Claim 6.

The Court: Read that.

[fol. 184] Mr. Glaccum (reading): "A cashier's counter for cash-and-carry type grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless three-sided frame on said portion and within which the merchandise is deposited."

The Court: A basket put there wouldn't violate it?

Mr. Beaman: That is right, Claim 6.

The Court: If I put a basket——

Mr. Glaccum: No. I am not claiming 6 would be.

Mr. Beaman: Your Honor, he talks about Claim 2 and we are not relying on that claim at all. I think it just confuses the issue here.

The Court: The basket would not violate it at all.

Mr. Glaccum: The basket wouldn't violate that. Take the Varnum frame or other pool frame and put it on the table——

The Court: Varnum's frame, the purpose of Varnum's frame is—as a matter of fact all he does is go down at the end of the table, gets all the balls, puts them in the rack, then he shoves them up to the mark on the table that indicates where the head ball will rest, and then he unlocks the frame, pulls it away and leaves them there.

Mr. Glaccum: Well, here they move the frame up, too.

The Court: That seems to be a lot closer to this invention than those that were cited.

Mr. Glaccum: That is our contention.

The Court: But that doesn't necessarily mean that, just because they are close, that doesn't mean they are not patentable, does it?

Mr. Glaccum: Well, it would not be invention to take and make a new use of an old item.

[fol. 185] Mr. Beaman: There is a model, your Honor, of that construction.

The Court: Of what?

Mr. Beaman: Of this pool ball rack. We tried to duplicate the disclosure of it for whatever information it might convey.

The Court: Of course, there is no cash register in here.

Mr. Beaman: It takes two hands to operate it, and our position will be it isn't analogous art in the first place.

The Court: Takes two hands to operate it, what do you mean?

Mr. Glaccum: To open it.

Mr. Beaman: The patent calls for springs.

The Court: But you don't have to have two hands?

Mr. Beaman: Yes, two hands. The patent calls for springs to hold this together. And, if you had groceries in there, in the first place, you would have to open it up to put them in. Our position in reference to that is, it isn't analogous art, and if the examiner did consider it, he would have passed it over on that ground.

Mr. Glaccum: It is a rack. And it is a rack we are talking about, nothing more or less.

We just considered Rorrer, who had his little rails 29——

The Court: What is that?

Mr. Glaccum: Rorrer, No. 1,873,852.

The Court: That is that one where he goes into the store and goes around?

Mr. Glaccum: He has parallel rails, 29, to facilitate the sliding movement of baskets with merchandise, to and from the platforms.

The Court: Storch.

Mr. Glaccum: Storch, I just noticed, wasn't originally cited by the patent office, and it is inadvertently here, but [fol. 186] was cited in a subsequent action. Storch provides means of delivery from the outside to inside of a home, and there is an opening to the outside and food may be put in as shown in Figure 3. Several parcels, if you will note there, are shown in dotted lines, then the door 17 can be opened, giving access to the interior of the residence, and the rack, 21 moves across the floor and moves the food into the inside of the house, as shown in Figure 4. And we have a rack receiving the packages from the outside delivery man, sliding them along the surface to the inside, or from one point to another.

The Court: That is nothing more than a dummy waiter.

Mr. Glaccum: It is a dummy waiter. It is rather a complicated structure.

The Court: That is like a mailbox, a great big mailbox.

Mr. Glaccum: Yes, except the mailbox doesn't move. There is no rack in the mailbox to move.

The Court: Oh, yes, there is. I mean, the package mailbox, you take and pull down that door, you put your package or your heavy mail inside that door and let it go, it is on a hinge, it turns right back.

Mr. Glaccum: Here this rack No. 27, pushes the groceries and other items along the surface and through the door.

The Court: Which one are you on now?

Mr. Glaccum: 17, Storch.

The Court: Where is your rack, 27? I see it, yes.

Mr. Glaccum: And if you look at Figure 3, it is in one position, while in Figure 4 it has been moved and they have pushed the groceries into the house.

The Court: Is that the way that works?

[fol. 187] Mr. Glaccum: Yes, sir.

The Court: Did he get a patent on that?

Mr. Glaccum: He did, back in 1924.

The Court: How did these people all get patents on these different inventions if the prior art had taken care of it?

Mr. Glaccum: I don't think some of them should have been issued, but they show all the elements present in the Turnham patent.

The Court: Myers.

Mr. Glaccum: Myers, we have a fruit stand that is provided with rollers so that the containers may be rolled, easily moved across the top of the rollers. That is just a more or less conventional roller arrangement.

The Court: A moving showcase.

Mr. Glaccum: They may have certain problems to meet in that particular line.

Mr. Beaman: Your Honor, I don't know what position I am in here, but Mr. Glaccum is not on the witness stand and he makes references to what are shown on these patents.

The Court: Do you dispute them?

Mr. Beaman: Yes, I do. In the first place, this one patent is cited by the patent office, this Storch, he has it in the wrong exhibit. I would like to have it transferred over so there will be no question.

Mr. Glaccum: I would be glad to have it transferred.

Mr. Beaman: With reference to that patent, he states

it shows all the elements and features of this invention and the patent office considered it, and it isn't——

Mr. Glaccum: I didn't make any such statement.

Mr. Beaman: What was your statement?

Mr. Glaccum: The Court asked me how all these people [fol. 188] got patents if they were so close together. I said in these patents all of the elements of the Turnham device are shown.

Mr. Beaman: I think we can answer it just on that reason. These patents are issued one after another and we are up to three million now. And the question of patentability it defined by the claims of the patent, and if the claim of the patent distinguishes over the prior art, then the patent office evidently thinks there is an invention and grants the patent. It is a question of the claims and the nature of them.

The Court: All right.

Mr. Glaccum: That is true. Of course, you might show an automobile engine and have your claims only cover the carburetor, but you have to show a good portion of the engine to show the operation of the carburetor.

Mr. Beaman: These patents are all very limited. The claims are drawn to certain details of construction which the inventor thought was important, and the patent office thought was patentable and the patent issues.

Mr. Glaccum: Now, in the next one we have the dining service apparatus in the patent to Greenberg, and we have trays to enclose food movable along a predetermined surface or conveyor belts.

The Court: Aren't those different than the thing you have here? Here you have a conveyor. Well, that is worked by hand, that Greenberg business, isn't it?

Mr. Glaccum: No. There is a conveyor belt shown at 7.

The Court: Well, it is a moving conveyor. We have had those for years. But a conveyor wouldn't be the same as this thing, would it?

Mr. Glaccum: I would say a conveyor would be the same as this.

[fol. 189] The Court: Any kind of conveyor?

Mr. Glaccum: Well, any of the conventional kinds. I say this is the same as the hoe or a rake. You just have something to move some material from one point to another.

The Court: Wait a minute, put a rake on and what is going to happen?

Mr. Glaccum: You would serape——

The Court: I will put rubber tips on the rake.

Mr. Glaccum: Well, it would pull the groceries down.

The Court: What is that?

Mr. Glaccum: You could pull the groceries down.

The Court: You could pull the groceries down, but what have you got? You have the hand rake in the way. You throw it away and you hit one of the customers on the head and they sue the A & P Company. Take any other arrangement, rake, hoe or anything else, can't you get a patent on a hoe?

Mr. Glaccum: Not any more, not on any hoe that I have ever seen.

The Court: Can't a man do something else with a hoe that nobody else has done before?

Mr. Glaccum: The new use of an old object isn't invention.

The Court: This is a new use of a new object because I have added something to the hoe.

Mr. Glacuum: Yes. But even a new use of a new object is not necesarily invention. It must arise to the dignity——

The Court: I am just asking questions.

Mr. Beaman: Your Honor, they issue patents on new hoes and new rakes very frequently. You are correct in your thought. The broom rake, that you probably have in your home, with wire thongs, sort of a series of spring metal teeth, there are numerous patents on that device, [fol. 190] and there are numerous patents on hoes, and different types of hoes, depending on the angle of the neck, or shape of it, or could have some fancy edge that would make it a better hoe. The fact that a device is simple doesn't mean patents are not issued on it frequently, and that invention isn't involved. Sometimes the mere simplicity is the height of invention.

The Court: Here is the Anderson.

Mr. Glaccum: That is an automatic self-serving device for stores in which there is a series of rollers, probably more clearly shown in Figure 4, on which trays or other means of containing the goods can be moved around.

The Court: Where is Figure 4?

Mr. Glaccum: Figure 4 is on Sheet 3 of the drawing.

The Court: Let's see how that works. Those chain shaped oblongs there, are those one of the rollers?

Mr. Glacuum: Those are rollers, 26, that just shows where it goes around the curve.

The Court: What does it do in the meantime?

Mr. Glaccum: The purpose of the invention is to give the greatest freedom, according to the specifications, is to provide service within a self-servicing store that will give the greatest of freedom to the shopper and to eliminate the carrying annoyance to the purchaser during his progress through the store.

The Court: In other words, you put it on rollers instead of a belt and they carry it around the store for you?

Mr. Glaccum: That is right, and takes it down to the check-out counter shown in 35 there.

The Court: You take it off there and go through the check-out counter, it that right?

[fol. 191] Mr. Glaccum: That is right. I think the ordinary bascart in use is a lot simpler.

Then we have the Clerc Store. There they move the merchandise by the customer.

The Court: Oh, they call that Shopineze. This is the Clerc Store. This is a Detroit fellow.

Mr. Beaman: It is on the first page of the patent, your Honor, the first page of the description.

The Court: First page of what?

Mr. Beaman: Of the description.

The Court: What does he do there?

Mr. Glaccum: He says here: "Another object of the invention is the provision of means whereby the entire selection of merchandise in the store is moved past each customer who may be comfortably seated in a chair." He has all his merchandise on a series of shelves in sections, and the customer comes in, sits down, takes what she wants, as it goes by.

The Court: Did they ever make any of them?

Mr. Glaccum: I doubt it.

The Court: They might sit there all day and by the time they decide that thing would be gone in the next place.

Mr. Glaccum: I can't say whether it was ever made. I have never seen it. I think it would require too much space and too much machinery to be practical.

The Court: I think so.

C. W. Butler.

Mr. Glaccum: That merely shows arrangements for keeping merchandise on shelves in orderly fashion so when one box is moved out, by a spring means another is moved in. It is a pusher.

The Court: In other words, here is your can up here. The person takes a can, automatically——

[fol. 192] Mr. Glaccum: Pushes the row out so another one is brought out flush with that side.

Dandridge.

The Court: Where are you now?

Mr. Glaccum: I skipped one.

The Court: Knudsen is a lunch counter.

Mr. Glaccum: Knudsen is a lunch counter. They just move those numbers around on a caster.

The Court: You mean a table goes around on a——

Mr. Glaccum: Caster arrangement, wheels.

The Court: That is an old caster, in the old days?

Mr. Glaccum: This is an 1897 patent.

Then we have Dandridge. Just shows another way of moving merchandise.

Mr. Beaman: I don't think the ketchup moves in this case. I think there is a conveying belt that goes around like a race track. That belt is moving all the time and as the tray comes by there, when it comes past, you take it off. The ketchup stands still.

Mr. Glaccum: And you have a conveying belt comes around with a tray on, and as it passes you take it off.

Mr. Beaman: You have to reach across the conveying belt for the ketchup.

The Court: Here is the Dandridge.

Mr. Glaccum: That is a very simple one where they take a table and move it back and forth.

The Court: On a conveyor?

Mr. Glaccum: There are little wheels and a table on it, and they pull it back and forth. It is a very simple conveying means. They claim you use this in moving a tray [fol. 193] from the kitchen out to the waiter. In other words, one end of this device would be in the kitchen, the other end would go out in the dining room, and they put the waiter's trays on and send them out to them. I have seen something like that in operation.

Groves is a similar arrangement. They move the entire counter.

The Court: Usually those are on ball bearings, aren't they, wheels or something?

Mr. Glaccum: They usually try to make them as noiseless or smooth as possible. Groves is a very similar arrangement, a section of the table moves back and forth.

The Court: A. S. Morsa.

Mr. Glaccum: We have a U-shaped frame, it isn't actually a frame, it amounts to the same thing, shown as 7 while lifting out cans from boiling kettles, and shows just the general nature of the frame.

Walker. We come back to the old conveyor, consisting of a plurality of rollers in which a little box or container can be moved along in a fruit packing plant. That is very similar to one we looked at before.

In Wolters, we have a filing cabinet.

The Court: What does that do?

Mr. Glaccum: Well, it is cited to show the structure it uses in pushing material.

And the same, I believe, is true of Bunn. That is a sorting arrangement which uses a rack.

It is our position that even though the plaintiff wishes to rely on the narrower claims, the Court should consider the other claims as well because they set forth what purports to be the invention.

You see, when Mr. Turnham was told by Mr. Weingarten to do something quick, as the testimony went this [fol. 194] morning, he went down and built this rack, and it was, we maintain, what any good store man with a little mechanical skill would do. That is fortified, we say, by the fact that the various magazine articles all showed different types of the same idea, but they don't show Turnham's device.

The Court: They are all about the same. They don't label them.

Mr. Glaccum: None of them show the track that Turnham uses. They all show this type of arrangement, referring to 13. And it is interesting to note that Mr. Weingarten testified this morning that he was for at least several years president of the Super Market Institute.

Mr. Beaman: For two years, he testified.

The Court: Three years.

Mr. Beaman: Three years.

The Court: Somebody else was seven; he was three.

Mr. Glaccum: And that these articles put out in the Super Market Magazine make no reference, give no credit to Turnham or to Weingarten, even though they are put out by an organization in which he was very active and had considerable control. They were put out for the industry to use.

The Court: Well, were they?

Mr. Glaccum: Well, certainly the purpose of the association, and the purpose of the magazine we are told, at least by the witnesses, was to exchange among this group that belonged to the Institute ideas to improve their service.

The Court: But can the editor of a magazine by failing to mention the man who is responsible for the invention, by the thunders of silence, in a way deprive the man of his invention?

Mr. Glaccum: No, unless we can show that they were put [fol. 195] out with the approval of the man. In other words, we have no evidence at all that these articles referred in any way to Turnham. On the contrary, the evidence would indicate that somebody else had brought up the idea.

In one exhibit, "Domestic Commerce," put out by the Department of Commerce——

The Court: When was that?

Mr. Glaccum: That was in March 1947.

Mr. Beaman: January 1947.

Mr. Glaccum: January 1947, I am sorry. We have the statement: "Retailer C was a successful grocer in a suburban community in an Eastern city of about a million people." Well, that obviously isn't——

The Court: Houston, Texas.

Mr. Glaccum: —Houston, Texas. It isn't any of these chains.

The Court: I can understand how those late articles didn't mention Turnham, but how is it when the first articles come out they didn't give him credit for this?

Mr. Beaman: Your Honor, the Turnham development in the Weingarten stores was made in 1937. The patent was applied for in 1938, and it was in the patent office and came out in 1941. The earliest magazine disclosure that we can find, I don't say it is the earliest one, but the earliest one we could locate was this January 1942. That was some months after the patent came out.

The Court: Is that it?

Mr. Glaccum: This is it, and bears the notation: "Sketches and photographs describing this article, courtesy National Cash Register Company."

Mr. Beaman: Mr. Buchoz testified he worked not for the National, but for Burroughs, and he took photographs [fol. 196] of this device and had it in his portfolio. Well, it is quite possible that National, there is some indication that National did the same thing but we haven't produced any testimony here to that effect.

Mr. Glaccum: One point on that store that Mr. Buchoz testified, that he carried around a picture and anybody that was interested was to write to Houston to get information. Defendant here served a subpoena duces tecum to produce any correspondence of that nature, and the only thing that the plaintiffs could produce were three or four letters in 1945.

Mr. Beaman: That is correct, your Honor, and Mr. Weingarten and his secretary, Mr. Turnham, searched his files for anything earlier than that. That is ten years ago, and if there were such letters at that time, they can't find them, and Mr. Weingarten did not recall having received any.

The Court: Well, what other evidence do you have to put in, anything, Mr. Glaccum?

Mr. Glaccum: No. I have no further evidence.

The Court: How do you want to handle this?

Mr. Glaccum: Would your Honor like briefs?

The Court: I think you ought to write a brief.

Mr. Beaman: Your Honor, these are prior patents. We have a witness here, and some charts that we have broken down these different disclosures to their elements, and what they disclose, and I would like to put Mr. Clark on in rebuttal.

The Court: You are entitled to that if they are through.

Mr. Beaman: Are you all through, Mr. Glaccum?

Mr. Glaccum: Yes. I wanted to correct that Exhibits E and F, to take out one patent.

[fol. 197] LESTER B. CLARK, called as a witness on behalf of the plaintiffs, being first duly sworn, testified as follows:

Direct examination.

By Mr. Beaman:

Q. What is your name, please?
A. Lester B. Clark.
Q. And your age?
A. Fifty-three.
Q. And your residence?
A. Houston, Texas.
Q. And would you qualify yourself as an expert in patent matters?
A. I spent three years in the patent office as an examiner. After graduating in engineering from Tulane University, I graduated in law and was admitted to practice law in Texas. I am a registered patent attorney. I have been registered since 1928. I have been practicing patent law in Houston, Texas, for the last nineteen years.
Q. Are you familiar with the patent in suit?
A. I am. I have prepared the application, prosecuted it, and obtained the patent, as patent attorney, for Mr. Turnham and Mr. Weingarten.
Q. Mr. Clark, I hand you a photostat of a chart that has been prepared, which is identified as Plaintiffs' Exhibit 25——

(Plaintiffs' Exhibit 25 marked.)

Q. —and ask you what that is supposed to illustrate?
A. This chart generally, on the left-hand side, illustrates the counter and arrangement of the Turnham patent which is here in suit. The upper left-hand corner illustrates the several parts, including the extension and the frame as shown in Plaintiffs' Exhibit 13, while the lower——

The Court: Is this in rebuttal? This has all been gone over.

Mr. Beaman: We are applying the claim of this patent, Claim 6, this structure.

The Court: Haven't you already done that?

Mr. Beaman: We haven't specifically, your Honor.

The Court: All right. But it has to be rebuttal now.

[fol. 198] Mr. Glaccum: We have not put in any testimony on what the Turnham patent shows.

Mr. Beaman: I am merely trying to show the combination that was patented.

The Court: All right. I will let you go ahead.

Mr. Glaccum: I think the patent speaks for itself.

The Court: It would to you, but it may not to me. All right, go ahead.

A. This drawing merely shows the structure, enlarged and in detail, of the patent in suit. And on the right-hand side Claim 6 of the patent has been typed and enlarged, and divided, designating the different parts by the same letters as are shown on the left-hand side. It is merely produced for purpose of explanation of the various elements and showing the combination of the claim.

Q. Mr. Clark, are you familiar with the patents which were cited during the prosecution of this case?

A. Yes, sir.

Q. Do you find in any of these patents the disclosure of the structure that is set forth in Claims 4, 5 and 6?

Mr. Glaccum: I will object to that question.

The Court: Give me the question again.

(Question read.)

Mr. Glaccum: That is a question the Court is going to have to determine.

The Court: Yes, I know it, but I am going to let him answer that and you can cross examine him on it.

Mr. Beaman: Your Honor, I am asking about the disclosure, where these elements of the claims are in these references.

The Court: All of them?

Mr. Beaman: Yes, and anyone, whether the invention that was patented is disclosed in these references. You see, we [fol. 199] have a combination claim here that the patent office has considered allowable as a new and patentable combination of more than one element.

The Court: In other words, a combination of the patent, not the tray with the open bottom.

Mr. Beaman: That is right. It is the combination of the tray with an extension, and with your checking counter arranged in a certain way; it is that broad combination.

The Court: Is there any such thing as a combination patent?

Mr. Beaman: Most patents are combination patents, your Honor.

The Court: It would have to be now, wouldn't it?

Mr. Beaman: That is right. There are very few instances of a single element being a patentable invention, though there are cases, metallurgical cases where you have a new alloy, you might have just one object, but that object is made up of a combination of minerals or chemicals. But this is a combination patent, and that is the importance of this Exhibit 25. It shows the combination which the patent office examined and considered to be patentable, and I have asked the witness if that combination is shown in any of these references that the examiner considered.

The Court: Is there anything in the file to show he considered this as a combination patent?

Mr. Beaman: Apparently he considered them because they were cited during the prosecution.

The Court: All right. Which patent you referring to now?

Mr. Beaman: I am referring now to the patents cited in the patent office.

The Court: By the examiner?

Mr. Beaman: By the examiner.

[fol. 200] The Witness: Let me have the file wrapper in order to answer the Court's question, will you please?

(File wrapper handed to witness.)

Your Honor, in the first examination when the examiner first took up this Turnham application for consideration, this file shows that he made a search in three different locations, looking for prior patents which he thought might be pertinent to the claims which were placed in this application. He searched in Class 20, Sub Class 1-7, Class 312, and Class 187, an unofficial cross class, indicating from my experience, I would say he made an extensive search attempting to locate this invention. And the last sentence of his first letter that he wrote to me when he first examined this application reads like this:

"It is thought that your claim describing specifically the rack and its combination with the counter might be allowable under the references cited."

In other words, that combination of the rack on the counter here would be a combination which would be patentable and would distinguish over these four patents to

Harvey, Hagar, Rorrer, and another patent Marsh upon which the defendant is not relying. That was the decision of the examiner when he first examined this to determine whether the combination claim would be patented.

The Court: What is the first one?

A. The first patent, Harvey.

The Court: What was that?

A. The Harvey patent?

The Court: Yes.

A. The Harvey patent shows a store. It was granted in 1920. He has shelves along the side and has a storeroom in the rear of the store. He placed a trackway along the top of one of the shelves or counters, and on that trackway he had a tract he could bring goods in the storeroom so it would be convenient to put them on the shelf. It had nothing to do with this invention.

[fol. 201] The Court: It must have had something to do with it because he said you will have to change your claim to get around that one.

A. Starting off we had some very broad claims in there.

The Court: Read the letter again. Let's see what he said, the tail end of your letter.

A. (Reading) "It is thought that your claim describing specifically the rack and its combination with the counter might be allowable under the references cited."

The Court: And one of the references is this business that went along from the storeroom, along the top of one of the shelves?

A. Yes, sir.

The Court: And he said unless you do that, why, you are going to run afoul.

Now, what was the next one?

A. The next patent?

The Court: Yes. That is the Harvey. Isn't the Rorrer next?

A. No, the Hagar patent.

The Court: What is the Hagar patent?

A. The Hagar patent showed a refrigerating counter with a little truck on the front of it which could be run back and forth along the front of this refrigerating counter. It is the same general subject matter as the other patent.

The Court: What is the third?

A. The third patent was the patent to Rorrer.

The Court: What was that?

A. The patent to Rorrer was a self-serve store.

The Court: Rollers, wasn't that the one?

A. Yes. Rollers where they had a shelf on a counter which extended around the inside of the store, and on this shelf the customers were supposed to place their basket and fill it up with goods and push it along ahead of them on this shelf. There was a platform and scale on the shelf.

The Court: The next one. There were four there, weren't there?

[fol. 202] A. The fourth is a patent to Marsh. The defendant has not relied on that in this case, the Marsh patent.

The Court: I am just trying to see what he considered to be patents that might interfere. What is that?

Mr. Beaman: That is the Marsh.

The Court: What?

Mr. Beaman: It is to put a ledger book on here, very heavy, if you want the book you can pull it along the desk.

A. Like in a Recorder's office, or County Court House.

Mr. Beaman: It is a little cart with wheels on it to put a book on.

The Court: Did he consider those as being hostile objections to granting the claims originally?

A. Yes, because we had some very broad claims which did not define and we limited the claims more particularly to define the combination and thereafter he allowed them.

The Court: It seems to me that rack is much closer than that. I mean, the one cited is much closer than any of those four. And that bank business is closer to me.

A. Those, in my opinion, don't show the combination either.

The Court: That is a combination with a counter, that is a cage for a teller in a bank. He could have said that, couldn't he?

A. Yes, he could have, possibly.

The Court: All right, go ahead.

A. I was attempting to answer your question whether or not the examiner felt there was a combination, and he supposedly said he did feel there was.

The Court: What is next?

Mr. Beaman: There was another patent cited by the examiner that was this Storch patent. That is a patent that the defendant had mixed up.

[fol. 203] The Court: I see. All right, what was that?

A. It was just a door in the outside of a building whereby parcels could be put into the building through this door and pushed off to the side so anyone opening the door after that would not have access to those.

The Court: There is a combination with the wall of a house.

A. That is right. But it isn't a combination of a cashier's counter or checking stand, such as the combination claims to this patent.

The Court: I see. After going into some, I think thirty-two patents which the defendant has relied upon in this case, and in going over the rest of them I find none of them any more pertinent than those we have just discussed now. None of them suggest this combination, and in order to——

Mr. Beaman: Your Honor, we have a chart here.

The Court: —anticipate these claims, none of these patents we have show or suggest the combination.

Isn't there a rule laid down by the Supreme Court as to what is necessary before a patent is valid?

Mr. Beaman: It has to involve an invention, your Honor. It has to be new, it has to be useful and it has to be an invention. That is what the statute says, anyone who has invented anything new and useful, that is the statute. Our Constitution gave Congress the power to grant to authors and inventors, for a limited period, exclusive rights to their inventions and discoveries.

The Court: Well, all right, go ahead with your witness here. You have asked him that question and he said no.

(Plaintiff's Exhibit 26 marked.)

By Mr. Beaman:

Q. Mr. Clark, I hand you a chart and ask you to identify [fol. 204] it. It is identified as Plaintiffs' Exhibit 26.

A. This chart has been arranged for convenience of analysis, and lists, along the left-hand side, all of the prior patents which defendant has introduced and offered here for consideration by the Court. The patent's name and number of the patent are listed in the two left-hand columns. In the column containing four X's the four patents which were mentioned by the examiner have been indicated.

The Court: Five of them.

Q. I think there were five.

A. Five of them altogether.

In the next column the X's indicate that they were cited by the defendant in this case. You notice the Marsh patent has no X in that line.

Then following that, across the top of the page, or chart, on an inclination, are the various features or details, functions of the parts of this combination claim, combination of this patent and combination claim. For instance, those have been listed that way and a check mark placed under each one of those. As to the patent which has been presented to the Court here by the defendant, a check mark is placed behind the patent which might be said to show that feature.

The Court: Well, it says at the top: "Relating to devices analogous to checking of articles at cashiers' or checking counters of grocery stores."

A. Yes, sir. The Dickinson patent, for instance, just as an example, relates to a pool table and racking of balls, which has nothing to do——,

The Court: That one isn't checked.

A. There is no check behind.

The Court: But the next one, the Weston is checked.

A. It relates to a grocery store, yes, sir.

The Court: I haven't seen that, have I?

Mr. Glaccum: No, your Honor.

Mr. Beaman: Your Honor, that chart was made up listing all patents the defense originally cited.

[fol. 205] The Court: Has he brought them in court here today?

Mr. Glaccum: I have them, yes, sir.

The Court: How about the Weston patent?

A. Here is the Weston patent. It is a cafeteria showing a shelf on which the tray is placed and pushed along ahead in order that the customer may take that tray to his table, pushes it along by hand, is all.

The Court: DaRoza. What is the DaRoza patent?

A. The DaRoza patent, that is a self-serve store and merely shows a checker's counter, and that is why the DaRoza patent was checked in that column.

The Court: That doesn't show a pusher?

A. No, sir. The DaRoza patent doesn't.

The Court: No pusher in that?

A. The DaRoza patent was one of the original ideas of the Piggly Wiggly store. It shows no slide, no combination.

The Court: It just shows like the A & P store that the picture was made in 1937.

Mr. Beaman: That is correct, your Honor.

A. It has nothing to do with the claims in this suit.

The Court: Now, the Weston, that is a cafeteria. The DaRoza there is no pusher. What about the Turner, Harvey, McCarty and Saunders?

A. I will come to each in turn. Turner shows a conveyor to carry orders from the supply room, carry goods to the cashier through a partition between the front room and the back room.

Mr. Beaman: The Court has reference to patents that weren't gone over.

The Court: Now you get down to the next row that shows your extension to the counter space, that shows your combination, doesn't it? That is the Turnham and Bradley patents—"extension on counter spaced from checking position for loading and presorting."

[fol. 206] Mr. Beaman: That is right. There are only two patents show that. That is the Bradley and the patent in suit.

The Court: Now the three-sided bottomless pusher, you find that also in the Varnum and Turnham?

A. Yes.

Mr. Beaman: The Varnum is the pool rack.

The Court: I know that.

A. But if you look along that line behind the Varnum patent, you see it fails to suggest a checking counter or any of the other features which are in the combination of these claims, a prior patent which shows just one detail or one element. Dickinson also shows a pool rack that opened up, three-sided.

Mr. Beaman: That is a patent where you dump the balls on a platform and they roll down.

The Court: "Guide means for pusher," the Dickinson, Storch, Morsa, Butler, Arnold, and also Turnham.

"Operating handle on pusher," the Dickinson, Arnold and the Turnham. The Turnham has all of the features so far.

Mr. Beaman: That is right, your Honor.

A. That is where those features were taken from.

The Court: "Articles moved by pushing," the Dickinson, Storch, Morsa, the Butler, the Arnold, the Varnum and the Turnham.

"Conveying means reciprocates to retrace path of initial movement." That is the Groves, the Marsh, the Dickinson, the Hagar, the Dandridges, the Storch, the Bunn, the Marois, the Morsa, the Butler, the Arnold, the Wolters, and again the Turnham.

"Articles deposited, conveyed, unloaded, on same surface adjacent checking position," the Storch and the Turnham.

[fol. 207] "Self-unloading by acts of reversal of movement to return to original position." That is Hagar, Storch, Morsa, and the Turnham.

A. Well, you see from that that the Storch patent had more of the elements than the others, and that was the principal patent which the examiner used, but he still allowed these claims as being directed to a combination not shown in the Storch patent because Storch was not directed to locating the goods at the checker counter. He didn't have any extension nor the three-sided bottomless pusher.

The Court: The Storch has no more than the Dickinson.

A. Yes.

The Court: Oh, yes, Dickinson has four, the Storch has five.

A. Yes, sir.

The Court: That is right. All right.

Mr. Beaman: I would like to introduce in evidence as Plaintiffs' Exhibits 25 and 26, the charts with reference to which the witness has been testifying.

The Court: All right. Any objection?

Mr. Glaccum: No.

The Court: No objection. Any other questions?

Mr. Beaman: I don't think so, your Honor. Just a moment.

That is all we have, your Honor.

Cross-examination.

By Mr. Glaccum:

Q. Did I understand you to testify, Mr. Clark, that Exhibit 25 purported to be the drawing of the Turnham device?

A. I have generally represented the combination of the Turnham device, if I recall.

Q. But it isn't the Turnham device shown in the application filed, is it?

A. No. It shows the general combination and parts, but [fol. 208] the drawing is somewhat different than the patent drawing.

Q. Then it doesn't purport to be the patent drawing?

A. No, because it shows a removable extension where the patent drawing shows——

The Court: Also shows the manner in which the pusher is attached, does it?

A. No, sir. It is just a diagrammatic drawing, an illustrated drawing.

The Court: It is more like 13 than it is 16.

Mr. Beaman: It is supposed to represent Exhibit 13.

Q. I understood the testimony was it was the Turnham patent.

A. I didn't intend to testify that. I don't think I said that.

Q. On your chart, Exhibit 26, did you not have a check under Dickinson under the column "three-sided bottomless pusher?"

A. No, I do not.

Q. I refer you now to Figure 4 of Dickinson.

A. In that view of the Dickinson patent, in Figure 4, no pusher is shown and, according to the description of the Dickinson patent, it isn't intended this device be pushed at all while the balls are in there. It is placed against the end of the table, as shown by the straight line across the bottom of Figure 2, right about the middle of the page. It isn't intended to be a pusher, that is the three-sided frame doesn't move at all. Balls are placed on the felt portion, 6, and rolled forward by gravity, or maybe pushed by the crossbar, 8, but the three-sided frame, 1 and 2, doesn't move.

Q. It has to be moved to use the balls, does it not?

A. It isn't moved to move the balls. They are put in there. In Figure 1 it would just be lifted off the balls. In Figure 4 it would be merely opened up and lifted off.

The Court: Isn't that the rack?

Mr. Glaccum: That is a pool rack.

[fol. 209] The Court: It has to be moved. First they take it down to the end, put the balls in it. Then they take and move it to the point on the table where the balls are.

Mr. Beaman: Your Honor, you are referring to the wrong patent. This is the Dickinson patent.

The Witness: No. The Dickinson patent is placed against that straight line about in the middle of the page, is the edge of the table, and placed in that position. The description in the patent says the balls are then dropped on the piece of felt at 7, or little platform 6. He says he does that so the balls will not dent the table or harm the table. He drops them on this piece of felt. Then you notice in Figure 2 they can roll forward by gravity into the triangular rack in front. He doesn't use that rack to move the balls around or anything.

The Court: Then the rack itself isn't up against the end or cushion?

A. No, sir.

Q. He could use it to move the balls laterally from one side to the other?

A. Yes, he could, but he doesn't say so in his disclosure and that is what we have to take, what he suggests in his patent and not what we or someone else might imagine he could do with it.

Q. As I understand, you drew the claims appearing in the Turnham patent?

A. Yes, sir.

Q. And you are familiar with them?

A. I think I am.

Q. In your opinion could Claim 2 of the Turnham patent be infringed by pushing a basket across Exhibit 13 without the use of the rack?

Mr. Beaman: Your Honor, I have no objection to him answering this question but I want to repeat again that Claims 4, 5 and 6 are what we are relying on in this case.

Mr. Glaccum: The question is not limited to any claims, and all are claims before the Court.

[fol. 210] The Court: You may have an answer.

A. Which exhibit did you refer to?

Q. I referred to Exhibit 13.

The Court: Claim 2.

Q. And I substitute for the rack a basket of groceries and push it down to the cashier or checkers position. My question is in your opinion would that infringe Claim 2?

A. I don't think it would, no, sir.

Q. How is that rack defined in the claims?

A. That rack is disclosed in the claims as a portion on the counter to receive merchandise being purchased, and means on the surface of the counter to enclose and move such merchandise to the cashier's station. If you placed a basket on there with articles in it, and then moved the basket, you would not by that act and by that movement enclose the goods because they would have previously already been in the basket. And that claim was drawn with that exactly in mind when drawn.

Q. It is your testimony then, under no circumstances, the language "and means on the surface of the counter to enclose and move such merchandise to the cashier's station," would not cover a basket?

A. No, sir, it would not. That is my opinion of it.

Mr. Glaccum: That is all.

The Court: All right. Any other questions?

Mr. Beaman: We don't have any more, I don't think, your Honor.

The Court: Any other questions?

Mr. Glaccum: I have one other question.

The Court: All right.

By Mr. Glaccum:

Q. Would any of the claims of the Turnham patent be infringed if the rack were removed?

The Court: If what?

Q. Would any of the claims of the Turnham patent be infringed if the rack were removed?

A. You mean removed, or removable?

[fol. 211] Q. Removed.

A. Removed, permanently and not used?

Q. Physically removed.

A. And then what?

Q. Would any of the claims of the Turnham patent be infringed by that structure?

A. Be infringed by what structure?

The Court: As it is there now.

A. As it is there now?

The Court: Yes. That is your question, isn't it?

Mr. Glaccum: That is right.

A. You mean taken that way and used in a grocery store, you mean?

Mr. Glaccum: That is correct.

A. Claim 1 calls for "open bottom enclosure," which is absent. Claim 2 calls for "means to enclose the goods," which is absent. Claim 3 calls for "means to enclose the merchandise," which is absent.

The Court: What is the matter with those things along the side there? They are there yet. Isn't that just as much a means of enclosure as that rack? That rack is just a double enclosure.

A. Well, of course, these claims, for instance like Claim 3, call for "means to enclose the merchandise on surface of the counter and to move such merchandise."

The Court: Wait a minute, you haven't got to that part yet. The first one is absolutely bound around the other two there, means of enclosing. This is not enclosing.

Mr. Beaman: Your Honor, he had reference to the claims when he said the first claim.

The Court: Let him go over it again, the first one.

A. The first claim calls for "combination of a cashier's counter and an extension thereon."

The Court: All right, you got that.

A. And "open bottom enclosure, movable."

[fol. 212] The Court: You haven't that.

A. Don't have that.

The Court: So passed that on.

A. "A cashier's counter in cash-and-carry type grocery, a cashier's station, a portion on the counter to receive the merchandise being purchased, and means on the surface of the counter to enclose and move;" that is out.

The Court: All right.

A. Claim 3. "In a cash-and-carry type of cashier's counter, a register on the counter, a cashier's station, a portion on the counter to receive the merchandise being purchased, and means to enclose such merchandise on the surface of the counter and to move such merchandise to the cashier's station." That is out when you took the three-cornered rack off.

The Court: I think I know what he is getting at. Read that again.

A. Claim 3. "In a cash-and-carry type of cashier's counter, a register on the counter, a cashier's station, a portion on the counter to receive the merchandise being purchased"——

The Court: All right, there it is.

A. "—and means to enclose such merchandise on the surface of the counter"——

The Court: There it is.

A. "—and to move such merchandise."

The Court: All right, I take my arm and I move my merchandise. It that what you are getting at?

Mr. Glaccum: That is right.

A. Merchandise to the cashier's station, so that all the articles of merchandise of a customer will be pushed together. It is my opinion, if that is the question Mr. Glaccum asked me, that it would not, as it stands there, now, would not have been an infringement because there is no means to move the merchandise. Your hand isn't a part of the combination.

The Court: I am not arguing with you. I am just trying to bring up his point.

[fol. 213] A. I appreciate that. I am just trying to answer his question.

The Court: You have to use your hand even on this instrument, don't you?

Mr. Glaccum: You have to use your hand to move the rack.

Mr. Beaman: Your Honor, I think that claim as he read it calls for a means to enclose, and this same means to enclose also moves.

The Court: It doesn't say so, does it?

Mr. Beaman: I think it does. Read it again.

A. "Portion on the tray to receive merchandise being purchased, and means to enclose such merchandise

on the surface of the counter and to move such merchandise."

The Court: Where is the comma there? Read that with the comma, will you?

A. All right. "In a cash-and-carry type of cashier counter, a register on the counter, a cashier's station, a portion on the counter to receive the merchandise being purchased, and means to enclose such merchandise on the surface of the counter and to move with such merchandise to the cashier's station." It is all one.

The Court: The last part is all one, I think, Mr. Glaccum.

By Mr. Glaccum:

Q. Is it your opinion that the last part of that claim would not be met by a basket?

A. No. It doesn't mention to enclose the goods because the goods are already in the basket when you put them on there.

Q. You will concede "means" would cover a basket if otherwise qualified?

The Court: His distinction there lies in the fact when you put the basket on, it is already enclosed.

A. It already has, and this is a new feature that encloses them if you take them out of a basket.

[fol. 214] Q. It doesn't say so. It says "means to enclose them." It doesn't say when.

The Court: I can see your point.

Mr. Beaman: I think Mr. Glaccum's original question was if you took the pusher off whether the claims would be infringed. I think the witness has gone through the first three claims and said the first three claims would not be infringed if the pusher isn't in the combination.

The Court: All right.

The Witness: What else do you wish?

By Mr. Glaccum:

Q. I would like a complete answer to my question whether any claim would be infringed if you removed the rack, or did not use the rack.

Mr. Beaman: You have gone through the first three claims.

A. You want me to go through the other three?

Mr. Beaman: Yes, the other three.

A. Claim 4. "A checker stand including a counter of the character described, and an open bottom pusher frame thereon." If you remove the pusher frame, of course you don't have that combination of Claim 4.

Claim 5. "Cashier's counter for cash-and-carry type grocery comprising a portion situated from cashier's stand upon which merchandise may be deposited and arranged; a bottomless three-sided frame." That is absent.

Claim 6 calls for a bottomless frame on said portion.

The Court: Let's see, there was just one claim that applied here, that would be 3, wouldn't it?

Mr. Glaccum: That is correct. But all the claims are before the Court, I just wanted to bring out.

The Court: They don't claim anything for 1, 2, 3, anyway.

Mr. Beaman: No, your Honor. We are relying on Claims 4, 5 and 6, and I wish the record to so show.

[fol. 215] The Court: It has. As a matter of fact, I think you men have been very fair in cross examination.

Mr. Glaccum: Plaintiff has come to trial without limiting the claims before trial, and I don't think he has a right to withdraw some of the claims from the case.

The Court: Just suppose I find one claim?

Mr. Balluff: If you find one claim infringed?

The Court: That is all I have to find. If he willingly withdraws three of them, what objection have you?

Mr. Balluff: The point is this, we would like you to consider all the claims for the purpose of showing the scope that he claims for his invention, and it is important in considering the invention with respect to prior art. Some of the claims are broader than others. Claim 2 is broad enough to read "or a basket if you slide it along there."

The Court: They are not claiming for those three and you people have stipulated as to the claims.

Mr. Glaccum: No, your Honor, we did not. We stipulated those three claims would be infringed, but we did not stipulate the other claims.

The Court: He may withdraw the first three claims.

Mr. Beaman: There has been no request made on us, and the stipulation was their own.

The Court: Do you disclaim as to those three?

Mr. Balluff: It would be withdrawn with prejudice if withdrawn from the case.

Mr. Beaman: We are relying on Claims 4, 5 and 6.

The Court: He asks you if you disclaim. It may affect the costs, I don't know. Is that the point you have in mind?

Mr. Glaccum: It is my point that at this time they can only be withdrawn with prejudice.

[fol. 216] Mr. Beaman: I don't think there is any authority for that.

Mr. Glaccum: They can never again rely on any of those claims, charging with infringement.

Mr. Beaman: We are not asking your Honor to interpret Claims 1, 2 and 3.

The Court: I know. But in this lawsuit he has admitted 4, 5 and 6. If this Court holds them good, they have been infringed by them. But they haven't admitted as to 1, 2 and 3, anything they have done or will do infringes this patent. That is your position, isn't it, and you don't want to come into court later on and have to defend on 1, 2 and 3?

Mr. Beaman: I see the point there, your Honor.

The Court: Your position is you don't withdraw them?

Mr. Beaman: I say we are relying on Claims 4, 5 and 6.

The Court: Well, all right. What else is there, gentlemen?

Mr. Glaccum: I take it your Honor would like this briefed?

The Court: I would like to have it briefed, and I would like to have you, when you turn it in, turn in the exhibits so I can have the exhibits and live with them for a while. This is kind of a close case. If you have any authorities, you better give me everything you have.

Offhand, it would seem this man was entitled to something for what he has done for the trade, if for nothing else. Of course, that can't be taken into consideration. How do you account for this, that if this is something that automatically came along, not with the chain store, but with the serve-yourself, an organization that is as efficient and has the able men in it that A & P have, didn't put these in their stores until four or five years after other people were running them?

[fol. 217] Mr. Glaccum: Well, the chain store problem with A & P, as Mr. Bucher has testified, required them to

change their entire method of merchandising in their chain stores. Before they got actually to the point where they were operating, some time had passed—not operating, but I mean operating efficiently and knowing their business.

The Court: Mr. Bucher testifies that they are continuously improving. I can see how that one little change in that store that they made comparatively recently, 1946, was it, Mr. Bucher, where you put the bags over on the other side?

Mr. Bucher: That was the latter part of 1946.

The Court: I can see where that one thing is saving you people hundreds of square feet in your different stores throughout the country, or will eventually.

Mr. Bucher: Your Honor, you know for a long time in the super market business we were checking right out of the basket. It took us a long time to find we wanted to actually take the merchandise out of the basket.

The Court: I remember that they put the basket on the counter and the girl would count the different items, but I guess she was missing too many small ones on the bottom.

Mr. Bucher: We have many divisions that almost entirely bring the carrier right to the checker and check the merchandise out of the basket to the bagger.

The Court: I am arguing because I want you to have the things in mind because they are in my mind. If they are in my mind and I don't say anything to you about them, you might say, "I never thought the Court would be foolish enough to think of one like that." Here is a man who has been in business for years and in 1937 he solves this problem in a pretty good sort of way, and in 1938 the [fol. 218] other stores start grabbing it, and in 1939, or 1940 he gets his patent. In 1941 the biggest chain in the country adopts it. Doing what he did, a simple little thing, it makes you wonder, "Why didn't we think of it in the first place?" And yet here is the maintenance man who has been in the department for sixteen years, and he probably kicked himself all over and said, "Why didn't we think of turning that thing around before and putting it over here?" This man saved the industry, let us say, thirty per cent.

Mr. Clark: That is a real test of invention.

The Court: Thirty per cent, let us say he did. Equitably, he is entitled to something from the industry. Whether

he is entitled legally or not, I don't know. I can see your position on it, but isn't the burden of proof on you?

Mr. Beaman: It is on the defendant.

The Court: I mean, the patent having been granted.

Mr. Glaccum: The burden to show it is invalid, or that it doesn't amount to invention?

The Court: One minute I look at it and say, "He has done something worth while, but is it patentable?" The next minute I say, "A fellow that does something like that in entitled to something."

Mr. Glaccum: I think the Court would be justified on the face of the patent to hold it did not amount to invention.

Mr. Beaman: The burden is on the defendant, and it is a very heavy burden.

The Court: With all the patents before the examiner, how is it they granted all the other patents that you have brought out here in the several that you cited in your answer?

Mr. Clark: None of them are claiming this same invention, your Honor.

[fol. 219] The Court: I am asking them that.

Mr. Glaccum: They are claiming specific improvements. We cite them to show the general state of the art at the time Mr. Turnham claims he made this invention.

The Court: Here is this fellow that has this little bit of tray he got on wheels, it is a basket on wheels, you know the one that goes around the store. After all, what has he got? He has got a pair of wheels there.

Mr. Glaccum: His claims don't have anything to do with that.

The Court: He has a pair of wheels and on that pair of wheels he has a container on the wheels. Are the wheels new?

Mr. Glaccum: This patent doesn't cover that feature.

The Court: The wheels aren't new at all. They had those in the Stone Age; they had those for rolling a stone. That is not new. Neither are the containers, because the rain came and washed out a log and the first thing the fellow knew he had a container. You put the two together and you have a combination, plus something else.

Mr. Beaman: That is what all our patents are built up on. We have a very few mechanical devices. You have your levers, and wheels, and all our inventions are built up from a very few known mechanical movements and

construction,and that is the way we arrive at these new combinations.

The Court: Well, I am going to wait for your briefs. I am asking a lot of questions. It looks to me as though the fellow has something whether he has something patentable or not, I don't know.

Mr. Beaman: Do I understand you don't want to hear us orally on this, you want us to file briefs?

The Court: What do you want to do, gentlemen?

[fol. 220] Mr. Glaccum: I would like to get the minutes before I start on the brief.

The Court: You would like to get the record before you prepare your brief, and you would like to get the record before you give an oral argument?

Mr. Glaccum: I think it will be next week be fore the record is ready.

The Court: Oh, yes, sure. It will be more than next week.

Mr. Glaccum: We would like a couple weeks.

The Court: I will give you all the time your want.

Mr. Beaman: Can we have thirty days? I have some other litigation coming up.

The Court: Thirty days? Will you get them in together?

Mr. Glaccum: Do you want to exchange?

Mr. Beaman: I would like to file a reply brief.

The Court: I will give you each a chance to file a reply brief. I tell you the best way to do it. Are you the plaintiff?

Mr. Beaman: Yes.

The Court: I think you ought to file your brief, let him answer, and you can reply to him. And if he wants time to reply to you, I will give it to him.

Mr. Beaman: O. K. I can have thirty days then for preparation?

The Court: Thirty days after you get the report.

Mr. Beaman: The record?

The Court: Yes.

Any chance of you people getting together on this?

Mr. Beaman: Your Honor, our only thought, as I said before, is to license the industry.

The Court: There isn't a great deal of money involved. This is not for the record.

(Discussion off the record.)

Mr. Glaccum: I have three weeks after plaintiffs' brief?

[fol. 221] The Court: I won't hurry you. I know you fellows have a lot of other things.

Mr. Beaman: Your Honor, I understand there will be oral argument?

The Court: I will give you a chance for oral argument if, after the briefs are in, you want to come up and argue.

I hereby certify that I have recorded verbatim by shorthand the proceedings had in open court in the above entitled matter, and that the foregoing record consisting of 291 pages, is a true and correct transcript of said proceedings.

Harold F. Barnard, Official Court Reporter.

Dated: April 10, 1947.

[Same Title.]

Proceedings had in the above entitled cause, before the Honorable Frank A. Picard, District Judge, at Detroit, Michigan, on Friday, November 14, 1947.

APPEARANCES:

Mr. Townsend F. Beaman and Mr. Robert C. Williams, appearing on behalf of the plaintiffs.

Mr. John H. Glaccum and Mr. E. J. Balluff, appearing on behalf of the defendant.

The Court: I have forgotten now who said they had some more proof.

Mr. Glaccum: The defendant, your Honor, just an additional witness.

[fol. 222] Q. Have you the witness here?

Mr. Glaccum: Yes, your Honor.

Would you take the stand?

LAWRENCE DRAKE, called as a witness on behalf of the defendant, being first duly sworn, testified as follows:

Direct examination.

By Mr. Glaccum:

Q. Mr. Drake, what is your occupation?

A. I am the editor of the grocery editions of "Chain Store Age."

Q. And would you give us a brief description of "Chain Store Age"?

A. "Chain Store Age," the grocery editions, is a trade paper for the grocery field, dealing with the activities of the chains, the corporate chains.

Q. To whom does this magazine go?

A. It goes to the chain store managers and to the chain store executives, and to some others interested in the field.

Q. How long have you been editor of the grocery edition of "Chain Store Age"?

A. Approximately a year and a half.

Q. And prior to that time what was your occupation?

A. Prior to that time I was working as a merchandising man with advertising agencies in New York.

Q. And were you in that position very long?

A. Up until 1943 I was with the Kroger Grocery and Baking Company, Cincinnati.

Q. How long were you employed by Kroger?

A. From 1930 to 1943.

Q. And would you tell us briefly in what capacities you were employed by Kroger?

A. At the time of my leaving Kroger and for several years preceding that I was the head of the marketing research department.

Q. And what duties did that position involve or entail?

A. That entailed the making of surveys for store locations, the testing of advertising, the testing of merchandising ideas, the testing of operating methods, and the development of certain equipment for operating.

[fol. 223] Q. Are you familiar with the check-out counters used by Kroger stores in which a slide or other means were used to move merchandise?

A. I am.

Q. And when did you first become familiar with this slide?

A. This slide was developed during the period of 1939 to 1941.

Q. Could you tell us, please, the circumstances leading up to the development of this slide?

A. There was an increase in business concentrated in a few stores and the equipment in those stores was not sufficient to handle the number of customers that were coming through. At the same time we did not wish to build or enlarge any more than we had to to handle the customers, and the problem was put up to my department to develop some means of getting more people through the same check stand equipment, the same number of lanes.

Q. And what year was this?

A. 1939.

Q. And did you thereafter work on the problem?

A. I did not devote full time to it but I worked on it thereafter.

Q. Was 1939 the first time that the problem was presented to you?

A. That was the first time.

Q. Now, when did you first see a check-out stand where one customer's groceries were being placed on the stand while the prior customer was being checked out?

A. That was in 1937.

Q. Where did you see that?

A. In a market in Oakland, California, that was known as the Housewives' Market.

Q. Would you describe that operation, please?

A. In that operation they had a regular check-out counter placed in the conventional manner but they had the cash register located away from its normal position, which is in the extreme end of the counter, down nearer the center of the counter. And in the operation hand baskets were used by the customers, and as the customers brought their baskets up during the rush hours a roving clerk assisted the customers in unloading their groceries. He would take the loaded basket from the customer, lean it [fol. 224] against the counter, unload it, and then as quickly as the cashier was ready for it he would use his arm to push the merchandise over in front of the cashier for her to check it out.

Q. Then would he reload the counter with the next customer?

A. While the cashier was checking out one customer's he would be unloading the next customer. He worked only during the rush hours and it was not the procedure during the course of the rest of the day.

Q. You saw that, as I understand it, in 1937?

A. Correct.

Q. At any time had you seen a rack used to move merchandise across a counter to a cashier or cash register?

A. Not in a grocery store. I had seen it in a hardware store.

Q. Would you describe that rack, please, to the best of your recollection?

A. That rack, to the best of my recollection was either two-sided or three-sided, that is it was shaped as a rectangle or as a triangle—I have forgotten which—but it was slid along the counter in front of the small hardware bins and as the customer's order was filled he would place these small hardware parts in the rack and when he completed the order he would slide the rack down to the end of the counter where he had his cash register.

Q. Now, when and where did you see this particular operation?

A. That was prior to 1918 in Martinsville, Indiana.

Q. Do you recall whether you saw the hardware operation with the use of the rack once or more than once?

A. More than once.

Q. Did you have occasion to visit Milgram Stores in Kansas City at any time?

A. Yes, several times.

Q. Did you at any time notice anything unusual in their check-out counter?

A. Yes. In 1939 I noted an extension on the end of their counter that projected out into the store. It was a rack arrangement on which the customers placed the baskets from the basket carrier, then slid the basket up to the cashier's counter.

[fol. 225] Q. When you saw this Milgram installation was that before or after this problem had been presented to you?

A. The problem had been presented before.

Q. And was anybody with you when you saw the Milgram installation?

A. James Davenport.

Q. And who was he?

A. He was my assistant.

Q. And what particular job was he doing at that time?

A. He was working on a store relocation problem in Kansas City.

Q. And do you recall just when that was, the month?

A. It was in warm weather. I cannot tell you the exact month.

Q. And the year was——

A. 1939.

Q. Did these various operations which you have described assist you in any way in solving your particular problems?

A. All of them entered into the solution of the problem.

Q. And did you and Mr. Davenport design any particular type of equipment?

A. We designed many types of equipment.

Q. And any of these involve the rack?

A. There were various types of racks developed.

Q. Would you describe these types, please?

A. We had one type that was sort of a dolly. It had no sides, small wheels, it rolled up and down the counter. It was found impractical because of difficulty of returning it without interfering with the next customer.

The Court: What kind and how many sides did you say it had?

A. That one had no sides. It had the bottom, the dolly.

Q. What other types of rack did you develop?

A. We worked with a moving belt, that is an endless belt on which the top of it carried the merchandise up to the cashier. And we worked with a three-sided rack with a bottom, and a three-sided rack without a bottom, a three-sided rack with dividers that were parallel to the rear of the rack, and we worked with a three-sided rack that had no dividers.

[fol. 226] Q. And what did you finally adopt?

A. We finally adopted the simplest of all the devices that we had used, simply consisting of a three-sided rack of various materials depending on which happened to be the cheapest at the time, and of various dimensions depending on the volume of the store but essentially just three boards nailed together.

Q. Over what period of time did this experimentation and development take place?

A. The experimentation with the equipment ended in 1940 and 1941. We continued to experiment with different ways of using the equipment up until 1942.

Q. When did you first install a three-sided bottomless rack, if you can recall?

A. I believe it was 1940 but I am not sure of that.

Q. Do you recall where it was installed?

A. The first one that I personally installed was in Cincinnati.

The Court: Who were you with then?

A. Kroger Grocery and Baking.

The Court: Kroger. What has the evidence shown as to the first time that the plaintiff used this?

Mr. Glaccum: 1937, I believe.

Mr. Beaman: 1937. Your Honor, these dates are all subsequent.

Mr. Glaccum: These dates are subsequent, your Honor, but we are offering to show that different people in different parts of the country when presented with the problem, which did not come up until 1938 or 1939, all came to the same conclusion without any knowledge of the other person.

The Court: All right.

Q. When did this period of experimentation start?

A. 1939.

Q. Would that be before or after the trip to Kansas City?

A. That would be before the trip to Kansas City.

Q. And was this period used entirely on the device that [fol. 227] you were going to use?

A. No. We spent a great deal more time working out the method and procedure of using the device than we did in developing the device. The device was to be adapted to the method rather than working out a method for the device.

Q. When you say "a method" would you amplify what you mean there?

A. In checking-out procedure there are many optional ways that it can be done. The question is whether we had someone to unload the groceries to assist the customer, or whether we had the customer unload her groceries. Then the question was should the cashier pull up the slide with

the groceries or should we leave it up to the customer to push it up. Then the question was should we ask the customer to sort her merchandise by departments or should we just permit her to dump it in. Then came the question of attempting to train the customers to put the price designation uppermost. Then there was the question of how the cashier started to check out the merchandise after it was put in front of her, whether she started ringing it on the register immediately as it was put in front of her, or whether she went through and checked the customer's sorting first, grouping the multiple priced items. And there were so many aspects of the method that it occupied a great deal more time than the device.

The Court: Read back that last sentence, will you please?

(The following read: "And there were so many aspects of the method that it occupied a great deal more time than the device.")

The Court: I don't quite know what you mean by that.

A. The development of the sliding rack itself required very little time compared to the development of the best method of using it in the stores.

The Court: You mean you experimented with different things, different methods?

A. We experimented with different devices and differ-[fol. 228] ent methods, much more with the methods than with the devices.

The Court: I see.

Q. Do I understand you adopted a device that was most adaptable to the method which you finally determined to use?

A. Right.

Q. And do I also understand that this problem was first presented to you in 1939?

A. Right.

Q. Prior to that time Kroger Company had been operating self-service stores, had they not?

A. Yes, sir.

The Court: It has been so long since I had this case. Is this the case that had all the various racks around the store?

Mr. Glaccum: Yes. But, if your Honor please, the essential issue was whether or not this rack was patentable and I think the testimony is clear Mr. Turnham, the plaintiff Weingarten's employee, developed the rack which is shown in the patent which involved certain——

The Court: Yes, I remember. I have a vague recollection of seeing patent racks around stores.

Mr. Beaman: Those are some prior art patents that Mr. Glaccum introduced.

The Court: All right.

Q. Mr. Drake, I show you Plaintiffs' Exhibit 13 and ask you if that rack is substantially the rack that you adopted?

A. Essentiallly, that is the final version. There are certain differences.

Q. Would you outline the differences, please?

A. In the Kroger rack, the one we finally used, we tapered this outside board down at the end. We took this handle and placed it back on the rack because in the position it is now it could cause an injury to the cashier if she was leaning ower the counter with the previous customer and if the customer who was approaching the counter should push this up, a handle of this type would be dangerous so we had our handle set back here, or inset into the side of the board.

[fol. 229] The Court: That came from experimentation, too.

A. Yes. We had a short cashier in the first store.

The legs, in most of our installations we did not use legs like this. We used slanted boards that came down into here to give us just a little more room because room in the front off the store is a very valuable property.

The Court: Better support too, isn't it? What you did was to take those legs and put them——

A. Yes, sir.

The Court: —so when the goods were on there the weight was right up against the side of the stand itself?

A. Yes, sir. And then in addition to that they could put the baskets under here. And you could save just a little bit of room but the one foot you saved we thought was very valuable right there in front of the store. We

also had these legs so they could be removed in some installations, not in all, and we hinged the extension here so if we didn't wish to use it we could drop it out of sight and save still more room, or build a display there in case the traffic did not warrant the use of the slide.

Q. When did you first hear of the Turnham patent?

A. I believe it was in 1945.

Q. Up until that time you had never heard of the installation of any slide of that particular type?

A. I heard many rumors of installations of various devices of this nature but never had any positive information as to any particular place.

Q. Now, when you finally developed the Kroger rack did you attempt to secure any patent protection on it?

A. I did not but my immediate superior in the company decided that we should check it with our company attorney, which we did.

Q. And what report did you get from that?

A. He did not believe that the device was patentable.

Q. So far as Kroger was concerned no attempt was made to patent it?

A. No, sir.

Q. And I believe you testified it was around 1945 that you first heard of Turnham?

A. Yes, sir.

[fol. 230] Q. Do you recall the circumstances of that?

A. Yes, sir. I believe the first time that I heard about it was in Boston when I was chatting with some chain grocerymen there.

Q. And did they advise you it was patented or show you the patent?

A. They didn't show me the patent. They told me they had heard it had been patented by men who were working for Joe Weingarten.

Q. And that was the first you had heard of Weingarten using a rack?

A. Yes, sir.

The Court: Weingarten got it patented when?

Mr. Beaman: His patent was applied for, your Honor, the Turnham patent in suit here was applied for in 1938. During the taking of our testimony the testimony established its installation in 1937. The Turnham patent came out in 1941, May 20, 1941.

The Court: This man said Kroger used this in what city?

A. The device was used in many cities but first used in Cincinnati, Ohio.

The Court: That is the home of Kroger?

A. Yes, sir.

The Court: What year was that?

A. That was in 1939.

The Court: Well, in this day and age when you can know what is going on in the other part of the country in less than a minute, or five minutes, might it not be just as reasonable to suppose they got this information from another part of the country by letter or something?

Mr. Glaccum: That is what I was just asking the witness whether he ever got that information regarding the Weingarten.

The Court: All right, go ahead.

Mr. Beaman: If I could just refresh your recollection, Mr. Weingarten and Mr. Turnham had several witnesses [fol. 231] from Houston testified that many of their competitiors were in their store and saw this device as early as 1937, including Kroger Company and A and P.

Mr. Glaccum: The testimony was the A and P representatives were in there but they never did adopt the rack in Texas.

The Court: All right.

By Mr. Glaccum:

Q. Did you from any source whatsoever, regardless of Weingarten or Turnham, receive any information regarding the use of the three-sided rack except that which you testified you saw prior to 1918?

A. No.

Q. So that as far as you knew that particular rack was original with you and Mr. Davenport and those working with you?

A. We believed that it was.

Q. You testified, Mr. Drake, that this problem was presented to you first in 1939 due to an increase in business. Do you know whether or not that increase of business was general?

A. It was not, it was spotty in 1939.

The Court: You mean in general where, throughout the country?

Mr. Glaccum: Throughout the country. The answer was no, it was spotty at that time.

The Court: Spotty. You mean in the grocery business?

A. Spotty within the Kroger Company. That is all the stores did not experience the same increase.

The Court: 1939.

Q. Can you give any reason for that?

A. Yes. The reason seemed to be that in certain cities there was a spurt of industrial activity as they went into some major construction projects. The three cities where I noticed it most were at Louisville and at Pittsburgh and at Cleveland.

Q. And the result was what?

A. The result was extreme congestion in a few stores.

[fol. 232] Q. And that was a problem that was handed you to solve?

A. The problem that was handed to me was how to get more people through the same number of check-stands because we did not wish to enlarge those stores.

Q. And your solution to that problem was extension of the counter and addition of the rack?

A. That was part of the solution.

Q. And the other part?

A. The other part was the method of using them.

Q. I believe you testified what part the customer would play in handling the merchandise and what part the cashier would play.

A. That is correct.

The Court: Wasn't there some testimony before that a picture of this Weingarten contrivance appeared in the trade journals?

Mr. Beaman: Your Honor, I think what you have reference to is the deposition that we read into the record of a Mr. Buchoz, I believe, who was a representative of this cash register company, and he was calling on all the chain stores, and he had at a very early date photographs of this installation in Houston and in order to assist in the sale of cash registers he was showing this to buyers and people interested in cash registers and using this as part of his sales promotion. Sometime after that date

these devices did come out in the trade journals and I believe the earliest one which we have been able to find —was it 1941 or 1942?

Mr. Glaccum: January, 1942.

The Court: All right.

Mr. Glaccum: I also would like to call your attention that Mr. Buchoz' testimony was he took these pictures around and suggested the people get in touch with Mr. Weingarten. We called upon Mr. Weingarten to produce any letters of inquiry. He was unable to produce any whatever.

[fol. 233] The Court: He must have been a plaintiffs' witness then.

Mr. Glaccum: He was.

Mr. Beaman: Yes.

The Court: Are you through?

Mr. Glaccum: I believe so. I am through.

Cross-examination.

By Mr. Beaman:

Q. Mr. Drake, I believe you testified on direct examination that at some time a patent investigation was made by the legal department of Kroger.

A. I did not testify to that.

Q. You said it was submitted to their legal department.

A. I submitted the question to our company attorney and he gave me his opinion.

Q. Do you know whether he made any sort of investigation or not?

A. I do not believe that he did but I do not know that positively.

Q. Was that opinion given to you right at the time you asked for it?

A. Off-hand.

Q. And you don't know when that was?

A. My guess is that that was in 1941.

Q. Well, the Turnham patent was issued May 20, 1941. Relative to that date you have no conception whether it was prior to the time the patent came out or subsequent?

A. I have no method of fixing the date.

Q. You also mentioned some talk you had with someone in Boston who called your attention to this Turnham patent, at least a patent that Weingarten had.

A. Right.

Q. And do you remember what that man's name was?

A. I cannot give you the name of the man. It was one of the officials of the Economy Grocery Company.

Q. And was that name changed later?

A. The name of the Economy Grocery Company was later changed to Stop and Shop Incorporated.

Q. When was this conversation?

A. To the best of my recollection in 1945.

[fol. 234] Q. And when did you become acquainted with the fact there was some litigation under this patent involving A and P Company?

A. In 1947.

Q. And what part of 1947?

A. During the summer.

Q. And would you care to relate how that was brought up?

A. I was in Boston again with Stop and Shop when I received a telephone call from my employer in New York who asked me if I was acquainted with the fact that A and P was involved in litigation on this, and I told him that I was not, whereupon he told me.

Q. And you can't recall the date when that was taken up with you?

A. I do not.

Q. You don't know the month?

A. No, I do not.

Q. Now, Mr. Drake, at the time your deposition was taken in New York——

The Court: Is that deposition here?

Mr. Beaman: Yes, your Honor, the plaintiffs took Mr. Drake's deposition in New York.

The Court: Is this the same witness you took the deposition of?

Mr. Beaman. Yes.

The Court: Oh, all right. I didn't know.

Q. I believe you stated that as to this 1939 date and perhaps others that you were relying upon information furnished you by Mr. Davenport, isn't that correct?

A. That is correct.

Q. And that you had no independent recollection of these various dates?

A. That is correct. But since that time I have had opportunity to refresh my memory by checking back on the circumstances as related by Mr. Davenport and I find that he is entirely correct in his dates.

Q. That Mr. Davenport's dates are correct?

A. Yes, sir.

Q. Now Mr. Drake, the patent that is involved in this litigation is known as the Turnham patent. And it was brought up here several months ago that the improve-
[fol. 235] ment Mr. Turnham considered he made to the checking stand in use in 1937 was to add an extension you might say rearwardly of the cash register extension on the counter, and then with this three-sided bottomless rack, I would say, referred to as a presorter, the groceries were placed into it and then brought forward, I think in the manner you have testified to here on direct examination. Now, am I correct in my understanding that in 1939, before you started on your development work, that the Kroger Company were using a checking stand that was similar to Exhibit 13 when I have removed the extension, the guide, and the three-sided rack?

A. It was similar to although there are certain fundamental differences.

Q. In general construction it was similar?

A. Yes.

Q. Now, you testified you went out to Kansas City in 1939 and you observed at one of the Milgram Stores some sort of extension for the counters, is that correct?

A. Right.

Q. And would that correspond generally to the extension that is exhibited in connection with Exhibit 13?

A. No. It was a different type of extension.

Q. What was the purpose of it?

A. The extension in the Milgram Stores was an iron bar arrangement that extended more than the length of this, at least twice as far, and the purpose of it was to give the customers a rest for their baskets and they slid them on these tracks up to the cashier, and she did the unloading from the baskets, the customers didn't unload the baskets.

The Court: Like that rail out there?

A. Yes.

The Court: Just a rail?

A. There were two rails on which the——

The Court: Two rails. How close together were they?

A. Just wide enough so the basket rested between them.

Q. Would it be similar to what you have in some of these cafeterias where you slide the tray?

A. Right.

Q. That sort of thing?

A. Very similar.

[fol. 236] The Court: That kind of an arrangement. Then one of the prime characteristics of this alleged invention wouldn't be present, that is one of the advantages wouldn't be present because here you are taking care of one customer while the other customer is getting unloaded, but in that you had to wait until the other customer got out of the way before you started to unload, isn't that correct?

Mr. Beaman: That is correct. I wanted to bring out that difference, your Honor.

The Court: All right.

Q. How old are you, Mr. Drake?

A. Forty-one.

Q. I believe in the affidavit that you filed shortly after this case was concluded in April you stated that in 1914 or 1915 you observed in a hardware store in Martinsville some type of rack that was used on a counter. Now, if my mathematics are correct, you were about some eight or ten years old, it that correct?

A. That is approximately correct.

Q. And you were testifying here a few minutes ago about your recollection of this rack in Martinsville as a child of eight to ten years old, is that correct?

A. Not necessarily; as a child of twelve or less.

The Court: What kind of rack did he say that was?

Mr. Beaman: Well, he said it was either a two or three-sided rack that was in this hardware store and on the counter and was apparently located in front of the bins where they had the nuts and bolts, as I understand it, and the storekeeper would take something out of the bins, put it in this rack and move it along.

The Court: Was this one he said had no sides to it?

Mr. Beaman: His testimony was it was a two or three-sided rack which would make it either an open ended rectangle or triangle.

[fol. 237] The Court: That is right, but that wasn't one that had the wheels under?

Mr. Glaccum: No. That was a bottomless rack.

The Court: This was a bottomless rack you are talking about?

Mr. Beaman: That was his recollection, your Honor, of something he saw at that time.

The Court: Like either a two-sided, or a triangle like a pool rack to rack pool balls in?

Mr. Beaman: A three-sided rack would be.

The Court: That is what you mean, isn't it?

A. No, sir. What I meant it was open at one end whether it had three sides as this or whether it had only two sides.

The Court: I thought you said a triangle.

By Mr. Beaman:

Q. Mr. Drake, of course, I am speaking about something now you saw some thirty years ago, perhaps, but was it your recollection they packaged whatever they took out of those bins before they put them in the rack or afterwards?

A. I beg pardon.

Q. In this hardware store can you recall whether the storekeeper put whatever he took out of the bins into a package and then put them in the rack, or did he put the contents of the bin into the rack and then sack it at the end of the counter?

A. He sacked it at the end of the counter.

Q. And is your recollection good enough to recall how a handfull of nuts and a handfull of bolts, a handfull of nails and a handfull of staples would look at the end of that counter about the time the fellow was ready to sack them?

A. My recollection is good enough to know that the staples were not, of course, included in that, nor were the nails included. I am referring to small hardware parts.

Q. I believe you testified that in connection with your experimentation, starting in 1939, that you used or experimented with a rack that had a bottom in it.

A. Right.

[fol. 238] Q. And I call your attention to Plaintiffs' Exhibit 13-A which is a small rack with low sides on three

sides and little wheels for assisting its movement along the counter. Is that at all comparable to what you were working with?

A. Quite comparable.

Mr. Beaman: In that connection, your Honor, I might say that the Bradley patent, this Exhibit 13-A was to illustrate the Bradley patent which Mr. Bradley took up with the A & P Company in 1940.

The Court: It had wheels?

Mr. Beaman: Yes. It was the rack or whatever you want to call it with a bottom which, according to the testimony given was not practical, and that has been confirmed by Mr. Drake's testimony.

The Court: I remember.

Mr. Glaccum: It shows, your Honor, different people with the same problem will try the same experiments.

The Court: All right.

Q. Do I understand that you tried this little cart with a bottom in, and moving belts, and what you refer to as a dolly, prior to the time that you adopted the bottomless pusher?

A. We tried all of them at about the same time. That is, we were experimenting with all of these different models and finally settled on what you refer to as a pusher.

Q. Now, you have put some of these out in stores, didn't you?

A. Yes, sir.

Q. And will you tell the Court what it was you put out in the stores to start with?

A. The first rack that we put out in the store was quite similar to this dolly.

Q. That is referring to 13-A?

A. Yes, sir.

Q. That is it had a bottom in?

A. It had a bottom in.

Q. And do you recall that was put out in two different stores?

A. At least two.

[fol. 239] Q. Was one of them Louisville?

A. One of them was Louisville.

Q. What about Cincinnati?

A. In Cincinnati also.

Q. And how many check stands were equipped with these carriages with the bottom in them?

A. Not more than one in each of the stores that we were working. It was purely a test operation.

Q. And you had how many other checking counters in those same stores?

A. At least two.

Q. Would you have had more than that?

A. Yes.

Q. I mean two checking counters is a pretty small store, isn't it?

A. Not for Kroger at that time, no.

Q. But you had only one stand at each of these stores installed?

A. In the first tests, yes.

Q. And how long were those carriages with the bottom in left in those particular stores for purposes of experimentation?

A. A very short period.

Q. That is your recollection?

A. Yes.

Q. What do you mean by short period?

A. A few weeks for a test. When you say how long were they left in the stores, they were left in the stores, abandoned in the stores. At least one of them was left there permanently but they were under test for only a short period.

Q. That is your recollection?

A. That is my recollection.

Q. And your recollection they were only there for a few weeks?

A. Right.

Mr. Beaman: I think that is all.

Mr. Glaccum: I just have a few questions.

Re-direct examination.

By Mr. Glaccum:

Q. At the time that your deposition was taken in New York and you testified that you were relying on the recollection of Mr. Davenport, have you since that time had an opportunity to check memorandum that would refresh your recollection?

A. I have.

[fol. 240] Q. So that you are sure of your dates now?

A. I am sure of the date of 1939 now, which is the date in question, I believe.

Q. You testified that in 1937 in Oakland, California, you saw an operation in the Housewives' Market?

A. Yes, sir.

Q. Would you show on this counter, Plaintiffs' Exhibit 13, how it operated?

A. I regret that I cannot show on this counter exactly because the cash register is affixed to the counter, but assuming that the cash register were not part of the counter here the operation consists of simply moving the register down to a point about here (indicating), and then the roving clerk, the trouble shooter who would go to the longest lines or most congested stations, would take the customer's order as she came up to the end of the counter here, take her basket, unload it, straighten out the merchandise, and push it down the counter to this point where the cash register and cashier were located.

The Court: What about the other customer who is right there (indicating)?

A. The cashier would be working on the customer that was standing here.

Q. That is in front of the register?

A. Yes, directly in front of the register. She would have her order piled here. The second customer's order would be being unloaded here and then the merchandise was pushed down.

The Court: Would there be an indentation there up to the cash register or would that be all counter?

A. That was all counter. That is the counter was square.

The Court: Yes.

A. Like this.

The Court: All right.

A. And this part of it came down. The part of the counter that the register is setting on came down here.

[fol. 241] The Court: You mean it was in an indentation then?

A. The counter was absolutely square. Actually this part of the counter is not normally affixed to this

The Court: Here is a counter the way it used to be and the cash register was right there, wasn't it? That is where it was, wasn't it?

A. No, sir.

The Court: And the people came right along and would get their groceries and check it right there; wasn't that the way it was?

A. No, sir.

The Court: Well, all right.

A. The cash register set on a separate small counter.

The Court: All right. Now, here is the cash register, here is the counter, here is where the people put their stuff.

A. Yes.

The Court: They moved this down here.

A. Yes, sir.

The Court: That left an indentation there, didn't it?

A. Yes, sir.

The Court: That is what I have been trying to ask you.

A. I didn't understand the question.

By Mr. Glaccum:

Q. In effect the cash register divided the counter in two sections?

A. Yes, sir.

Q. Checking section and loading section, or unloading section, whatever you might call it?

A. Yes, sir.

Q. So that the roving clerk would unload one customer's purchases and place them on the counter while the cashier was checking with the prior customer?

A. Yes, sir.

Q. Now, you were questioned about how long the racks with the bottoms in them were left in the stores. Were the racks with the bottoms left in the stores while at the same time you were experimenting with racks without bottoms?

A. Yes.

[fol. 242] Q. So they would be both in the store and different stores at the same time?

A. Yes, sir.

The Court: May I ask this: Even when they move that cash register down farther you still had the problem of

getting the second party's groceries up before the cash register——

A. Yes, sir.

The Court:—when the first customer got through; isn't that right?

A. Yes, sir. They are pushed by hooking an arm around them and pushing them up that way.

The Court: Hooking an arm?

A. Hooking an arm up around that way, in effect creating a three-sided rack with an arm.

The Court: You mean human arm, not a mechanical arm?

A. Right.

Q. Were they moved in one complete unit?

A. Right. Along with this development we installed express stands for the convenience of one and two item customers in many stores, working very nicely.

Q. Did I understand you to say it worked nicely?

A. Very nicely.

The Court: All right.

Mr. Beaman: We have no more questions.

Mr. Glaccum: You can step down.

The Court: Is that all?

Mr. Glaccum: No, your Honor. I would like to read a few questions and answers of a witness called by the plaintiff, whose deposition was taken in Kansas City.

Mr. Beaman: Your Honor, in that connection we would like to have that whole deposition put into evidence.

Mr. Glaccum: I have no objection to putting it in but the only part I was particularly interested in was a few questions and answers.

[fol. 243] Mr. Beaman: Well, as long as you are going to read the whole thing——

The Court: Have you seen it?

Mr. Glaccum: They took it.

Mr. Beaman: Yes, we took it, your Honor.

Mr. Glaccum: It is their witness.

The Court: Has it been introduced?

Mr. Glaccum: It has been filed, I believe.

Mr. Beaman: This is a deposition that we took after this notice of new evidence and based on the information they furnished us.

The Court: You intend to read it?

Mr. Glaccum: I intended to read a very short portion of it.

The Court: May it be all considered in evidence, and have you any particular portion you want to read, I mean plaintiffs' attorney?

Mr. Beaman: In this particular deposition there are only a very few parts of it, but in another deposition of Mr. Davenport, to whom Mr. Drake referred, we would like the whole deposition read in the record.

Mr. Glaccum: That is agreeable.

The Court: Do you mean you want to do it this morning? Why can't I consider it read into the record and have it available?

Mr. Glaccum: The original, I believe, is on file.

Mr. Beaman: The original, yes, your Honor, they are on file.

Mr. Glaccum: So long as we can refer to them in our briefs.

The Court: In your briefs, that is all right. Any objection to that?

Mr. Beaman: No, your Honor. There is considerable conflict of testimony here but we want them in the record of course, but I think we can handle them just as well from the briefs as we can on the stand.

[fol. 244] The Court: I think so. But they may be considered in the record for all purposes, both of them. Are those the two right there?

Mr. Glaccum: I think we better identify them.

The Court: I think you better.

Mr. Glaccum: Three depositions taken by the plaintiff. Do you want Mr. Drake's in too?

Mr. Beaman: Yes. As long as we are going to handle it in this expedited manner I would like to have all three depositions in there.

Mr. Glaccum: Deposition of Mr. Lawrence Drake, taken on August 15, 1947; deposition of James A. Davenport, taken on September 9, 1947; and the depositions of Leonard Milgram, Thomas E. Scofield and Hartley H. Jackson, taken on September 10, 1947.

I think the record should show these depositions were taken by the plaintiff after the order opening the case for the submission of additional evidence.

Mr. Beaman: That is right.

The Court: All right.

Mr. Glaccum: It may be stipulated the exhibits attached to the depositions and identified by the witnesses be admitted in evidence.

The Court: All right.

Mr. Beaman: Your Honor, I believe that winds this matter up.

We have filed our brief. Following the trying of this case in April I think our brief crossed Mr. Glaccum's motion for reopening this case, so our brief is on file.

The Court: Do you want to add anything to it at this time?

Mr. Beaman: Yes. I think we should be permitted to file a supplemental brief.

The Court: I think you can file a supplemental brief. When do you want to get it in?

Mr. Beaman: I think the 15th of December would be time enough.

[fol. 245] The Court: How long do you want to answer? You haven't yours in at all?

Mr. Glaccum: We haven't ours in at all because we brought this motion before the time.

The Court: All right.

Mr. Glaccum: If we could have until the 15th of January.

The Court: I think so.

Mr. Beaman: And then we will have the right to file a reply brief after receiving yours?

The Court: All right.

I hereby certify that I have reported verbatim by shorthand the proceedings had in open court in the above entitled matter, and that the foregoing record, consisting of thirty-four typewritten pages, is a true and correct transcript of said proceedings.

Dated: November 18, 1947.

Harold J. Barnard, Official Court Reporter.

[fol. 246] DEPOSITION OF JAMES A. DAVENPORT

The deposition of James A. Davenport, taken on behalf of the plaintiffs before E. M. Robfogel, Notary Public for the State of Ohio, on Tuesday, September 9, 1947 at 9:00 o'clock A. M., at the office of Allen & Allen, 706 Gwynne Building, Cincinnati, Ohio, pursuant to notice.

Appearances:

Beaman & Patch by Mr. Robert C. Williams, for the plaintiffs; and Munn, Liddy & Glaccum by Mr. John H. Glaccum, for the defendant.

JAMES A. DAVENPORT, of lawful age, being by me first duly cautioned and sworn, deposes and says as follows:

Direct examination.

By Mr. Williams:

Q. What's your full name?
A. James A. Davenport.
Q. And your address?
A. 4346 Clifford Road.
Q. What city?
A. Cincinnati.
Q. Cincinnati. What's your age, Mr. Davenport?
A. Forty-one.
Q. What's your present occupation?
A. Sales promotion for the Kroger Company.
Q. What are your duties?
A. I work on new promotions, new items, at this item.
Q. Mr. Davenport, have you always been associated with the grocery business?
A. I came with the Kroger Company when I left school; I have been with them ever since, about fifteen years.
Q. Fifteen years. In other words, you left school about 1932?
A. About 1931.
Q. And you have been with Kroger ever since?
A. Yes.
Q. Mr. Davenport, what was your first job with the Kroger Company?
A. Clerk.

[fol. 247] Q. A clerk in a grocery store?

A. That's right.

Q. And in the old style stores where the clerks got the merchandise in the stores and served the people?

A. Yes.

Q. At that time was Kroger engaged in or in self-service operation?

A. They had a few stores in the southern branch which they called the Piggly-Wiggly Stores, which were self-service.

Q. I see. What do you mean by the southern branches?

A. I should have said the southern cities.

Q. You mean southern United States?

A. Yes, Nashville, Memphis.

Q. Mr. Davenport, do you know Mr. Lawrence Drake?

A. Yes.

Q. When and where did you first meet Mr. Lawrence Drake?

A. Here in Cincinnati in 1939.

Q. What was your position at that time?

A. District manager in our Cincinnati branch. That was the time when I was changing jobs. Mr. Drake was director of the Market Research Department and he offered me a position in his department.

Q. What sort of a position was that, Mr. Davenport?

A. His assistant in market research work.

Q. What does this market research work entail?

A. It entails a number of things. We study markets, analyze them, make recommendations, we do experimental work on methods, policies and so forth.

Q. Always toward the one goal of putting out more and better food at lower prices and higher profits?

A. That's right.

Q. I take it that during the time you were working as assistant to Mr. Drake you and Mr. Drake traveled around the country?

A. Yes, we did.

Q. I take it you visited competitors' stores?

A. Yes, we visited more competitors' stores than anyone else in our company.

Q. What was the purpose of your visits to competitors' stores, Mr. Davenport?

[fol. 248] A. Sometimes we checked competitive prices; sometimes we checked methods being used by our competitors. We checked the type of equipment they had and anything that pertained to the thing that we were working on at the time. One job which we did quite a bit of is store location work. In that work we would visit all the competitive stores within the area where we were working.

Q. Well, you said when you visited these competitors' stores you would check on the problem with which you were then concerned. Do you mean that you didn't have a general assignment?

A. No, we worked on a number of different things from time to time.

Q. Each little problem being taken up by itself?

A. That's right.

Q. I see. And you have traveled to Kansas City with Mr. Drake?

A. Yes, sir.

Q. You recall when was the first time you went to Kansas City with Mr. Drake?

A. Yes, sir, I do.

Q. When was that?

A. That was July, 1939.

Q. What was the purpose of your trip to Kansas City?

A. I made a store location survey of Kansas City. That was my first job in the market research department. I have a note here from the branch manager of the Kansas City branch, dated June 28, 1939, in which he tells us in this note that it will be satisfactory for us to arrive in Kansas City on July 10, 1939 to start the store location survey which we made. Mr. Drake went with me. That was the beginning of the survey. I worked the whole job myself, except on maybe two or three trips which Mr. Drake came out to supervise the job. I worked in Kansas City about three months straight in which I made the store location survey south part of Kansas City. I came back to Cincinnati only about once every four weeks during that time. After I finished the south part of Kansas City then I went back and did the same thing over in Kansas City, Kansas; after that I went to the north side of Kansas City and did the store location work there.

[fol. 249] Q. These three problems just ran contiguous?

A. Yes.

Q. They followed each other right along?

A. Yes. And then after the north Kansas City job I did some jobs in the small towns out there, Booneville, Missouri, Leavenworth, Kansas, and Marshall, Missouri and Sedalia.

Mr. Glaccum: I don't mean to interrupt. Was that all in 1939?

The Witness: No, the south Kansas City job lasted about three months.

Q. Till September of '39?

A. I would estimate that would be close to it. Then the Kansas City, Kansas side that extended up through the rest of the year of 1939, maybe into the first part of 1940. Then the north Kansas City probably extended up to June, the report dated June, 1940. Then the country stores probably covered—I mean the country towns I spent perhaps the rest of the year of 1940 on that. The town, the small town jobs come in piecemeal. I worked on Booneville first; later on when I got time after working on some other things in general office here, I went back and picked up another town or so; that extended up until 1941. 1941 was my last trip to Kansas City until 1945; after I completed that job, the store location work I was not back out there any more until 1945.

Q. What were you doing out there in '41 after you had completed your first survey?

A. Well, I was still working on those small towns as I said before and they came in piecemeal from time to time.

Q. You have seen the so-called Milgrim counter device?

A. Yes. You are referring to that iron rail extending back from the check-out counter which is used for the customers to place their bascarts on while they are waiting in line at the check-out counter.

Q. I take it that the customer normally brought one of these double-deck carts up to the end of that thing and put the basket from the cart on to this iron or steel slide?

A. Yes.

[fol. 250] Q. Did the customer push the basket from the end of the slide up to the cashier?

A. Yes. Not exactly to the cashier. When the customer approached the check-out counter this rail which extended

back about six feet, if there was a line there the customers used it when there were a number in line—most of them did not use it but those that did removed the bascarts from the bascart frame placed them on the iron rails, and then as the line moved up they lifted their groceries up from that to the check-out counter; after moving the basket those six feet on the rail the customer lifted the basket up on top of the check-out counter and the customer removed the merchandise from the basket to check the merchandise.

Q. Then what happened to the basket?

A. As I remember the clerks picked the baskets up and sat them all on the other side, the other end of the check-out counter.

Q. By that you mean the place where the customer leaves, towards the end——

A. Yes.

Q. (Continuing) Away from the cash register?

A. Yes.

Q. How did the basket get back on the cart?

A. A clerk would take a whole big armful of them, eight or ten, stack them in each other and carry them back and fill up the bascart frames with the wire baskets.

Q. Mr. Davenport, did you know that this particular thing that you have just described has been patented?

A. No, I didn't know that it had been patented. I heard that a patent had been applied for.

Q. When did you receive the information that the patent had been applied for on that?

A. I don't recall, but some time during—since this case came up.

Q. Well, when did you first hear that this case had come up?

A. Possibly a year ago.

Q. Do you recall the circumstances under which you heard that this litigation was pending?

A. Yes. Our legal department went to Mr. Schapker who is now director of our merchandising research department [fol. 251] and asked for information on our, the Kroger pre-sorter. That's what we call a pre-sorter, wooden slide.

Q. Can you fix the date on that, Mr. Davenport?

A. I don't believe I can fix it exactly, but it must have been a year because Mr. Schapker has been director of

the department a year and it was when he first came in the department.

Q. When was it that you first saw this Milgrim device?

A. It was in the summer of 1939 while I was on this store location job.

Q. Would that be while you were making the store location survey in south Kansas City?

A. Yes, it definitely was. It was on Mr. Drake's first trip out there because I had visited a large number of stores and I spoke to him about this on his first trip. It must have been the latter part of July.

Mr. Glaccum: Of '39?

The Witness: Yes.

Q. Of 1939, yes.

A. And I told him I was going to take him to see it, and one of the store locations that we were studying was at Troost and Linwood, I believe, or 31st and Troost. That's Kansas City. I am referring now to the business center at 31st and Troost or Linwood and Troost, whichever it is, which we have a store there. We had one then. Milgrim's was south one block of the Kroger store. I remember this particular store location because we had some difficult problems there with the parking lot and we had recommended a very large sign on the side of the building advertising our parking lot, and while looking over this location we went down to the Milgrim store to see this attachment to the check-out counter. After observing it we went across the street to a restaurant called the Blue Bird. We discussed what we could do with it by changing it, making it more efficient, so that the merchandise could be placed on the counter, pre-sorted and pushed up to the cashier. We drew an outline of it on the table and [fol. 252] the waitress suggested that she get a piece of paper for us.

Q. You mean she objected to your spoiling her tablecloth?

A. I don't think it was a tablecloth, I think it was just a plain varnished table, and she brought us a napkin, paper napkin and we drew the sketch of what we thought the counter slide should look like and brought that back to Cincinnati with us. I had been out there almost a month and that week end, why I came home, he and I came home together. It was our idea to make a counter slide that

the customer could arrange her merchandise in according to the way the cashiers ring it on the cash register. For example, groceries first, meat next, and produce last. We presented it to the other members of the department after we returned to Cincinnati, and there were several ideas suggested. Mr. Drake suggested some too and later he didn't like his own ideas. I suggested one with a bottom to it because heavy items like a twenty-four pound bag of flour would have to be on a bottom, otherwise it would be torn or hard to push, so we made up the first sample like I suggested. On my next trip back, which must have been some time in August, my next trip back to Cincinnati, the sample had been made up and was down at our equipment place. I went down to see it. They had promised it to the Louisville branch and they expressed it down there to Louisville, and then on my next trip back they didn't have any word from it. They didn't know whether it was working or not, and I asked for one to be made up so I could take it back to Kansas City with me and experiment with it while I was there on this store location job. They decided that was too far away from general office, that they couldn't observe the attachment, I would be the only one to observe it, and they would like to have it closer, so they made one up for the Cincinnati branch. One of the members of the department took it over to our Cincinnati branch and installed it in a store, and I asked about [fol. 253] it every time I was back in general office and no one seemed to be too much interested in it, result being that it was used only occasionally.

Q. This was the one with the bottom?

A. Yes, this was one with the bottom.

Q. And this was in 1939?

A. Yes. It worked, it operated back and forth on a rail which was made out of thin wood so it wouldn't slide off the counter, with a bottom to it, and it was designed for a clerk to operate it. A clerk was stationed by the slide, removed the merchandise from the customer's basket and pushed it up to the cashier. At that time George Edwards was sales manager of the Cincinnati branch. Some time the latter part of 1940 he was transferred to Louisville and as soon as he got down there and saw a few stores he asked for a counter slide because he thought he needed them, so we made another one up and took it to Louisville. This time I took it down myself. Mr. Edwards had only

been there a few weeks and had visited a few stores, because he showed me the stores he had visited, what his plans were. This was right after he went down there, which was in January, 1941, and the store that he planned to put the pre-sorter in was going to be remodelled in about three weeks, so he held up the installation of this pre-sorter until February of 1941. Now then, let's see now —in the meanwhile at the same time we made this one up for Mr. Edwards we made up another one for the Cincinnati branch, but it was an improved one with no bottom to it.

Mr. Williams: Let it appear in the record the witness is refreshing his memory.

Q. Go on.

A. This improved one replaced the old one in the same store in the Cincinnati branch. Now, those two continued in operation with only an occasional use up until some time in 1942. Now, in 1942——

Q. You mean they continued for three years with only occasional use?

A. Yes.

[fol. 254] Q. These are the originals with no bottoms?

A. Yes. The only time they were used was when there was a large crowd at the check-out lanes. The reason they were not used more the store managers felt that they could not spare an extra clerk to put at the check-out counter to operate the slides. In 1942 the only record I have of this is that immediately after war was declared I was considering going into the services and Mr. Drake wanted me to go to Detroit and put these counter slides in two stores there and I promised him that I would do that before I went into the services. That was in January of 1942. I put those pre-sorters in in Detroit and they were designed for customer, I mean for clerk operation, and there too we could only get those sliders, slides in use only when there was a large crowd at the check-out counter.

Q. They still had bottoms?

A. Beg pardon?

Q. They still had bottoms in it?

A. No, none of these did have bottoms; they worked very much like the ones we have now only they had the handle on the back for a clerk to operate them rather than having the handle on the front for the customer.

Q. When did you take the bottoms out of them?

A. I will tell you when we took the bottoms out. The ones that we made in January, '41, one for Louisville and one for Cincinnati, that was when we took the bottom out. We also took the track off of them, the track on the counter in which they would slide back and forth. After I returned from Detroit I decided I would wait to be drafted, I didn't enlist to go into the services, so they gave me an assignment on self-service produce.

Q. On what?

A. Self-service produce. At that time our northern branches, beginning with Cincinnati going north, had service produce, clerks waited on the customer; our southern branches did have self-service produce. We had tried to install self-service produce in the northern branches and it was unsuccessful. They gave me the assignment to [fol. 255] find a way to make self-service produce work in the northern branches. I went to Cleveland and I was going to operate a produce department myself for three or four weeks, so they suggested that since we were short of scales that we use the pre-sorter in the store where I was experimenting with self-service produce. By putting scales on the check-out counter we felt like it would slow up the check-out system, and so to off-set that we were going to install the pre-sorter on the check-out counter of this store on Hough Avenue in Cleveland.

Q. Go on.

A. A Joe Johnson who worked in our department at that time was in charge of the operation of the pre-sorter. I was in charge of the whole self-service produce experiment.

Q. This was in January of '41?

A. No, this was in March, 1942, when this self-service produce test started. From my observing the results of the check-out system at that store I came to the conclusion that clerk operation was wrong, that we would never get any benefit out of it if clerks operated it. I had an idea that the customers would operate it if we found the way to teach them. Everyone else opposed me on this. We had many arguments on it, so after about three weeks I decided to extend the self-service produce program to a larger number of stores. I selected the five large stores in Akron and Cuyahoga Falls and other small towns around Akron, and extended the self-service produce test and I also decided to install pre-sorter counter slides in these

stores and experiment with it myself, so Joe Johnson who was in charge of the pre-sorters in the first store did not go with me on this next one because he opposed my method of operating it. In Akron I spaced off on the counters a space for produce, meat, and groceries. I attached little cards to the frame of the pre-sorter giving instructions as to how to operate it. Customers one by one started to using it and, oh, about the second week there were close to 75 per cent of the customers using [fol. 256] it. Then the branch manager came down and I pointed out the success I had with it and he says if you will continue with it another week and if it still continues to work good we will put it in all the big stores in Cleveland. This must have been in February of 1942 because in just a few weeks we had it in all the large stores in Cleveland. This was done in opposition to the thinking in general office because their thinking was that we should not add any responsibility to the customer, that the time was coming when we would have to give more service instead of less service.

Q. And this was in February of '42?

A. Yes.

Q. It seems to me you just said, Mr. Davenport, that it was in March of 1942 when you first started this experiment with the self-service produce?

A. March, that's right. This was a month later; it must have been April instead of February.

Q. Must have been April instead of February?

A. Yes.

Q. I see.

A. Because it was only a few weeks after we started this self-service produce test that we actually installed the pre-sorters in a number of Cleveland stores.

Q. I see. Now, in summary then your first look at the Milgrim thing was in 1939 in July, and that you came back to Cincinnati and had them build a counter slide with a bottom in it which you used until—which you experimented with until January of '41, at which time you built it without the bottom?

A. And without the track.

Q. And without the track on which they slid, and that it was about April of '42 before you had any acceptance, any indication that they were really successful and that they were put into a larger number of stores?

A. Yes.

Q. And accepted after putting it in?

A. That's right.

Q. When did you first hear about the development down in Houston, Texas of this Turnham counter pusher about which this case is concerned?

A. It was about a year ago when our legal department asked Mr. Schapker for further information on the work that we had done on it.

[fol. 257] Q. When you first joined Mr. Drake as his assistant in 1939 did you receive an assignment to keep up with the industry through the trade journals and things of that nature?

A. No, I don't think I received an assignment, I think it was just natural that we would do that.

Q. I see. And you did start at that time reading the trade journals?

A. Yes.

Q. Can you give me the names of the trade journals you were reading at that time?

A. No, I don't think I can give you the names. We read Chain Store Age, Progressive Grocer, and then we got a number of chain store journals in the office but I think those two are the ones that we particularly read regularly.

Q. And prior to the time that you first built a counter slide without a bottom, which was January of '41, you had seen no publicity in any of these trade journals showing a device of that character?

A. No.

Q. Mr. Davenport, have you been informed that Mr. Milgrim in Kansas City has informed us that his Milgrim device, meaning the thing with the six foot steel slide extension extending back from the cashier's counter, was first developed in the spring of 1941?

A. One day last week—no—yes, one day last week I asked our legal department for the report which I wrote on our pre-sorter counter slide; he gave me the whole files. I read it in the files.

Q. Do you mean that in your file you read that the Milgrim thing had been developed in 1941?

A. Yes, I read that they claimed it had been developed in 1941. It was developed before then.

Q. In other words, you believe that their claim isn't right when they say it was developed in '41?

A. I know it's not. You see, I had an uncle that lived in Leavenworth, Kansas, a retired army man. Just a few months before the war started I visited my uncle; he predicted that we would enter the war within six months, and that was the last time I was in Kansas City until 1945 [fol. 258] after he died. Immediately after war was declared I wrote him a letter and told him how accurate he was. I never got to see him any more until, well, after he died, 1945.

Q. I see. And you were out there to see him in 1941?

A. Yes. Every time I went to Kansas City I went to see him, so you see I had to see it before that last time I saw him in 1941.

Q. How do you arrive at that conclusion? Are you sure that it wasn't the last time you were out there that you saw it?

A. No, it was the first time I was there that I saw it, and the last time I was out there, not counting 1945 when I was out there, that was the last time I was out there until 1941 before the war, before we entered the war, and so I had to see it either in 1939, 1940 or 1941, and it was 1939 because our records show that that's when we started our reports and I know it was 1939 because it was when I was here on a trip from Kansas City that we had the first one made up here.

Q. And the first Kansas City trip was in 1939, July, is that right?

A. Yes, July 10th.

Q. And that was definitely the first time that you saw this?

A. That was the first time I had ever been in Kansas City and the first time that I had seen the pre-sorters, I mean the rails attached to the Milgrim counter. It was only in one store, not all of the Milgrim stores, because I visited every store, grocery store in Kansas City.

Q. In what sort of a report is this that you said you read just last week or something like that, that showed that it was 1939?

A. I said I read the report which I wrote on the Kroger pre-sorter slide. I asked the legal department to let me see the report which I wrote; they gave me the whole files on the pre-sorter. In that file I saw a letter from someone to our legal department to the effect that Milgrim had applied for

a patent in 1941 or '42, I don't recall the date. That was only a week ago.

[fol. 259] Q. And that report to which you refer is dated?

A. I don't recall. He (Mr. Glaccum) has a report here which shows 12/24/46.

Q. Have you any other means of refreshing your memory as to the fact that it was on that first trip that you saw that Milgrim device?

A. I think so. Mr. Drake went out to Kansas City with me on July 10th, and as I remember when we sat down and analyzed our problem, made my sketch, it looked like that I had enough to keep me busy for a month. I wanted him to come back in two weeks because that was my first job. Well, he had some arrangements made whereby he was going to be on two long trips and would be a month until he come back, so I was worried about that and he refused to promise me that he would come back in two weeks; so when he did come back I had everything under control and I was ready to come home because I had worked hard and been away from home a whole month, and on this first visit the latter part of July after I had visited most of the grocery stores there and had seen this attachment to the Milgrim counter, that I told him about it when he first came in town and we made a note of it that we would go around and see it, and we came in on Saturday night. I stayed home over the week end until Tuesday morning. It was Monday, that Monday at the office that we called in the other people of the other department and discussed it. That was my first trip back after going to Kansas City on this job.

Q. Mr. Davenport, have you been informed that Kroger has been notified of infringement of the patent under which the plaintiff in this case is suing the A & P Company?

A. I read that in the file that I got last week.

Q. Do you recall the date of that notice of infringement?

A. No, I do not.

Q. You don't remember what the date of that infringement letter was?

A. No, I didn't pay much attention to it.

[fol. 260] Q. But the date of this report from which you have refreshed your memory is December of 1946?

A. The letter here—I mean the report is dated 1946.

Q. Do you recall why that report was written up in 1946?

A. Yes, that was at the time that Mr. Schapker asked me to write a report for him because our legal department had asked him for further information on it.

Q. And so you wrote that report some time in 1946?

A. Yes.

Q. Did you have a period in the service, Mr. Davenport?

A. No, I didn't.

Q. You were with Kroger straight through the war?

A. Yes, I was rejected.

Mr. Williams: Your witness.

Cross examination.

By Mr. Glaccum:

Q. Mr. Davenport, you said you were in Kansas City, or at Leavenworth at least, in 1941 when you last saw your uncle.

A. Yes.

Q. Were you working in Kansas City at that time?

A. I made a store location study in Kansas City, I mean in Leavenworth in 1941.

Q. But were you working in Kansas City proper at that time?

A. Yes; only from the standpoint of working out of the Kansas City office. I did not visit the stores in the City of Kansas City at that time. The only stores that I visited were the new Kroger stores that I had recommended in my store location study that had been already constructed and in operation.

Q. But in your store location work you were doing in 1941 was out of Kansas City?

A. Yes.

Q. And the first store that you saw this Milgrim presorter in was around 31st and Troost, was it?

A. In the business center at 31st and Troost.

Q. You mentioned Mr. Edwards; do you know where [fol. 261] he is today?

A. He's with some company in Texas, I think the Weingarten Company.

Q. What was the purpose of putting in these pre-sorters?

A. To eliminate the waiting period for the customer in the check-out lane.

Q. And when to your knowledge did that waiting period become a problem?

A. Well, of course it's always been a problem on Saturdays. The problem became more acute during the war when there was a shortage of help.

Q. But it was not a serious problem up until '39 or '40 or '41, was it, in there?

A. Oh, it was a serious problem because customers were complaining even before the war about the long waits at check-out counters in chain stores.

Q. When would you say that it first became acute?

A. Well, of course right after the war started when the manpower shortage developed.

Q. You had trouble getting clerks?

A. Yes. A number of chains worked on different methods of speeding up the check-out service.

Q. Now, you referred to a memorandum or a letter from your Kansas City manager stating the date on which you would arrive there. Would you mind if we marked that for identification?

A. No.

Mr. Glaccum: I think you will stipulate that we can return it to him and put a photostat in?

Mr. Williams: Yes.

(Letter hereinbefore referred to marked by the reporter "Davenport Exhibit A" for identification; original withdrawn and photostatic copy similarly marked attached hereto and made a part hereof.)

Q. You have here a report entitled Kansas City Individual Store Location Reports and Summary; can you tell me when that was made up, if you know?

A. That is dated 9/8/39.

Q. You made that report?

A. I made that report.

[fol. 262] Q. In 1939?

A. Yes, after completing the work out in the field, then I spent some time from time to time, a few days from time to time in general office in which I wrote the report, so it was 9/8/39 when it was actually typed up.

Mr. Glaccum: May we mark that for identification?

(Report hereinbefore identified by the witness marked by the reporter "Davenport Exhibit B" for identification.)

Q. That report which has been marked Davenport Exhibit B for identification was made after you made this survey in Kansas City, south Kansas City that is?

A. Yes.

Q. Have you ever, except for your visit to Kroger stores, visited any stores in south Kansas City since this report was made up?

A. In 1945 the last time I was out there—no, no, in 1946 was the last time I was in Kansas City.

Q. In 1941 you were not in south Kansas City except for Kroger stores?

A. That's right, except for the new Kroger stores that had been installed as the result of the store location survey.

Q. You did not go into any Milgrim stores at that time?

A. No.

Q. Have you any other records that would substantiate your position that it was in 1939 that you first saw the Milgrim installation?

A. I think I have a record here that would establish Mr. Drake's first trip out to check on my study, which was July 28th. This is a letter from Miss Leisgang, our superintendent. We had sent the little notebooks in where we had interviewed customers in about seventeen different stores that I knew. The notebooks were being tabulated here at general office; Miss Leisgang was in charge of that tabulation. Here is a letter which she wrote to Mr. Drake [fol. 263] July 28, 1939, asking for further information on the notebooks. That was the trip on which Mr. Drake was out there and which we saw the attachment to the Milgrim counter, so it was some time the latter part of July.

Mr. Glaccum: I would like to mark that for identification.

(Letter hereinbefore referred to marked by the reporter Davenport Exhibit C for identification; original withdrawn and photostatic copy similarly marked attached hereto and made a part hereof.)

Mr. Glaccum: It is hereby stipulated by and between counsel for the parties that Davenport Exhibit B for identification be photostated as to the cover and the first three pages, they being a part of a bulletin of some fifty pages

which constitute a report made by Mr. Davenport to the Kroger Company dated September 8, 1939.

I have no further questions.

And further deponent saith not.

(Signature waived)

By agreement of the parties and with the consent of the witness, the reading and signing by the witness of this deposition is waived.

[fol. 264] CERTIFICATE

STATE OF OHIO,
Hamilton County, ss:

I, E. M. Robfogel, a Notary Public in and for the State of Ohio, duly commissioned and qualified, do hereby certify that the above named James A. Davenport was by me first duly sworn to testify the truth, the whole truth and nothing but the truth; that the deposition as above set forth was taken in shorthand and reduced to writing by me and was taken by me pursuant to notice; that the signature of the witness was waived as appears of record herein; that I am not counsel, attorney or relative of either party or otherwise interested in the event of this suit, and was at the time of so taking the deposition a Notary Public in and for the State of Ohio.

In Testimony Whereof I have hereunto set my hand and official seal this 10th day of September, 1947.

E. M. Robfogel, Notary Public, State of Ohio.

My commission expires October 17, 1947.

[fol. 265] DAVENPORT'S EXHIBIT A FOR IDENTIFICATION

Form 710-17. Inter-Branch Letter

To: Branch Food Foundation, Department Market Research. Attention of Lawrence Drake. Dated June 28, 1939. No. 7361-KBM.

From: Branch Kansas City, Department Management. Individual K. B. Mitchell. Answering yours dated 6-23-39. No. —.

Subject: It will be satisfactory with us for you to report to Kansas City to begin location work as we have requested on July 10th.

I will be in the office on that day and have a discussion with you.

K. B. Mitchell.

KBM/nc.
cc—Mr. H. V. McNamara.

[fol. 266] DAVENPORT'S EXHIBIT B FOR IDENTIFICATION

Kansas City

Individual Store Location Reports & Summary

Market Research Dept., The Kroger Food Foundation

Sept. 8, 1939

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Summary

The extensive string street developments and sprawling intermediate business centers of the southern section of Kansas City, Mo. indicate the diffusion of retail business. The well developed minor center characteristic of the compact trading areas found in many cities is strikingly absent. There is small place for the conventional neighborhood chain store in this area.

Concentration of a large food volume is comparatively simple due to:

1. The absence of effective minor business centers and the presence of large areas zoned against business.

2. High automobile ownership and good connecting streets in all directions.

Competition has recognized these conditions. The average weekly volume of the 62 units of our three major

competitors is $2250 as compared with our $900 average. Each of these competitors has used a different approach to the problem.

[fol. 268] The A. & P. Method may be ignored because:

1. It does not work for A. & P. who have slipped from a dominant position and retrenched as their competitors have expanded.

2. It moves in the opposite direction of our store policy.

The Milgram Method has been rejected, even though it has been the most successful in obtaining volume because:

1. The Kroger organization is not adapted to the operation of stores of this size, (average weekly volume $7,600).

2. The operation appears vulnerable and will be less successful as competition increases.

The Safeway Method is recommended, almost in its entirety, for this area because:

1. It seems to offer the best chance to obtain a permanent, profitable operation.

2. It involves a less radical change from our present operation and permits us to capitalize on present limited store acceptance and private brand development.

[fol. 269] DAVENPORT'S EXHIBIT C FOR IDENTIFICATION

The Kroger Food Foundation,

125 Government Square

Cincinnati, Ohio

July 28, 1939

Mr. Drake,

With further reference to the spotting books—there were 17 books in the second group but one was a blank with the front part of the booklet torn off. Is it possible that you still have the filled pages?

I have two books each for the 8 stores spotted on Thursday and Saturday. The following is a list of the books for Saturday only:

31st & Troost
Troost & Brush
321 E. Gregory
39th & Summit
Woodlawn & 31st
39th & Main
Broadway & Brookside
31st & Charlotte

I am finding it necessary to hire additional help. Much bigger job than I thought it was.

Mail enclosed.

Sincerely, B. Leisgang.

[fol. 270] DEPOSITION OF LEONARD MILGRAM

The examination of witnesses, produced, sworn and examined on the part of the plaintiffs, pursuant to the attached notice, between the hours of eight o'clock in the forenoon and six o'clock in the afternoon of Wednesday, September 10, 1947, at the law offices of Mr. Thomas E. Scofield, 2600 Fidelity Building, in the City of Kansas City, in the County of Jackson and State of Missouri, before me, Emily F. Miles, of Miles and Behrens, shorthand reporters, a Notary Public in and for the County of Jackson, State of Missouri, and a certain cause now pending in the United States District Court for the Eastern District of Michigan, Southern Division, wherein Evelyn B. Bradley and Joe Weingarten are Plaintiffs and The Great Atlantic & Pacific Tea Company is Defendant.

APPEARANCES:

For the Plaintiffs: Mr. Thomas E. Scofield, 2600 Fidelity Building, Kansas City, Missouri.

For the Defendant: Messrs. Munn, Liddy & Glaccum, 24 West 40th Street, New York, New York, By Mr. John H. Glaccum.

LEONARD MILGRAM, of lawful age, being produced, sworn and examined as a witness on behalf of the plaintiffs, deposeth and saith:

Direct examination.

By Mr. Scofield:

Q. 1. Please state your name.
A. Leonard Milgram.
Q. 2. Your address?
A. 5145 Hudson Road, Johnson County, Kansas.
Q. 3. What is your age, Mr. Milgram?
A. Fifty.
Q. 4. What is your business?
A. Retail food business.
Q. 5. Where is it located?
A. Main office is at 401 East 22nd.
[fol. 271] Q. 6. Do you have stores in Kansas City?
A. We do.
Q. 7. How many?
A. Thirteen.
Q. 8. Are you here this morning as a result of a subpoena which was served on you?
A. I am.
Q. 9. I show you a patent, No. 2286548, and ask you if you can identify it.
A. I can.
Q. 10. Are you the Leonard Milgram who is a joint inventor with Mr. Jackson on this patent?
A. I am.

Mr. Scofield: It is requested that the reporter mark the patent as Plaintiffs' Milgram Exhibit 1, in order to identify the patent with the witness' deposition.

(Said patent was marked by the notary for identification as Plaintiffs' Milgram Exhibit 1, EFM.)

Mr. Scofield: It is agreeable with counsel that photostats of patents or records which may be offered be used with the same force and effect as the originals, if the originals are available?

Mr. Glaccum: That is correct, and I would suggest that the photostats be bound into the copies of the record.

Mr. Scofield: That will be done.

By Mr. Scofield:

Q. 11. Mr. Milgram, you and Mr. Jackson have been subpoenaed by the plaintiffs to furnish the history and development of the design of the check stand which is shown in Patent 2286484. You have also been brought here to establish the dates of the conception of the design and information concerning any check stands which were used, prior to the design shown in the patent, by the Milgram stores. Do you know when the design which is shown in the patent was first developed by you and Mr. Jackson?

A. I can't establish any definite dates.

Q. 12. The patent was filed on July 31, 1941. Do you have any recollection as to how long prior to that date of filing this particular design of check stand was developed by you and Mr. Jackson?

A. I would say approximately two or three years prior.

[fol. 272] Q. 13. How do you fix that period of two or three years prior to the date of the application?

A. It is purely a guess.

Q. 14. You have no records to establish the statement which you have previously made?

A. No.

Q. 15. Were the check stands such as are shown in the patent installed in your stores?

A. They were.

Q. 16. When were the check stands as shown in the patent installed and how many were installed, do you know?

A. The first patented check stands were installed about April in 1941, and we first installed eight of them.

Q. 17. Were all of those eight installed in one store?

A. They were.

Q. 18. Where were they installed?

A. At 33rd and Troost Avenue.

Q. 19. When these eight check stands were put into your Troost Avenue store, did you at that time have any type of check stand for which they were substituted? In other words, did you have check stands in the store at that time?

A. We did.

Q. 20. Who made the check stands that were removed?

A. I believe the Jackson Manufacturing Company did.

Q. 21. Do you have any way of establishing that?

A. I wouldn't know, unless we still have the record at our office of check stands prior to those installed of the patented type.

Q. 22. When was this Troost Avenue store opened for the first time, do you recall?

A. In 1937.

Q. 23. When it was opened, was it a self-service store?

A. It was.

Q. 24. Did you install check stands when the store was originally opened?

A. We did.

Q. 25. Do you know who made those check stands?

A. Jackson Manufacturing Company.

Q. 26. Has Mr. Hartley Jackson made all of the check stands which you have used in your stores here in Kansas City?

A. No.

[fol. 273] Q. 27. You have gotten check stands from some other source?

A. I have.

Q. 28. You are sure, however, that Mr. Jackson furnished the check stands for the Troost Avenue store when it was opened?

A. Yes, quite sure.

Q. 29. In how many of your Kansas City stores do you have the check stand as shown in the patent, at the present time?

A. In how many stores?

Q. 30. Yes.

A. All of them.

Q. 31. Are all of the check stands in all of your stores the check stands shown in the patent?

A. They are.

Q. 32. Can you state the period over which these check stands were installed?

A. Of the patented type?

Q. 33. Yes.

A. I don't recall exactly.

Q. 34. Were there any installed prior to April of 1941 when the first eight were installed in the Troost Avenue store?

A. I wouldn't be able to set the date exactly, but it is possible that Jackson Equipment Company would have

invoices or records establishing dates at which time these patented check stands were delivered to our various stores.

Q. 35. Well, would you be able to state whether or not the check stands as shown in the patent were installed in any of your stores prior to January of 1941?

A. I couldn't state definitely.

Q. 36. What I am trying to get at is, over what period the check stands were furnished to you by the Jackson Company, and I am referring by "the check stands," to the check stands of the patent, in order to fix the period when these patented check stands were furnished you by the Jackson Company. Do you have any definite information with regard to that.

A. No, I don't have.

Q. 37. From the date of the patent, would you be able to make a guess as to when these patented check stands were installed in the stores?

A. Approximately within a period of, I would say, six months from the time the first patented check stands were installed into our first store, that is the 33rd and Troost store.

[fol. 274] Q. 38. And I understood you to say that since the installation of the first eight in your Troost Avenue store, that all subsequent check stands installed in your Kansas City stores have been according to the patent?

A. That is right.

Q. 39. Have there been any changes in the design since those original eight were installed?

A. There have been no mechanical changes.

Q. 40. Now, as to check stands that were made by Jackson or installed by others in your stores prior to the installation of the patented check stands, do you have any recollection as to what those check stands were?

A. They were merely counters approximately 33 inches high, six foot long and 24 inches wide.

Q. 41. Did they have a receiving slide for the produce, extending out from the counter?

A. They did not.

Q. 42. They did not. Have you made a search of the company's records to determine when these check stands of the patent were furnished to Milgram?

A. I looked at our equipment cards which we have in our files, and the first date that I am able to establish in

connection with the installation of our patented check stands shows that an invoice was issued us on June 20, 1941 by the Jackson Company.

Q. 43. For how many check stands?

A. I don't remember that. I didn't look that up.

Q. 44. That is the only information that you could find?

A. That is the only information that I have. Our equipment records like this at that time were not as highly developed as they are now.

Q. 45. Are you familiar with this Turnham patent which is in suit here, No. 2,242,408? I put the patent before you.

A. I can merely say that I have seen that type of a check stand.

Q. 46. Where did you see it?

A. Oh, in various parts of the country.

Mr. Glaccum: I didn't hear that.

[fol. 275] A. In various parts of the country.

By Mr. Scofield:

Q. 47. Did you ever see check stands such as are disclosed in the Turnham patent in any of the Weingarten stores?

A. I believe that is the first place where I have seen them.

Q. 48. Where was it you saw it?

A. At Houston, Texas.

Q. 49. At Houston, Texas. When was that, do you recall?

A. I don't recall. I have been there several times in the past few years.

Mr. Scofield: The Jackson patent No. 2,286,548, marked for identification as Plaintiffs' Milgram Exhibit 1, is offered in evidence.

Mr. Glaccum: No objection.

(Which said patent, previously marked for identification as Plaintiffs' Milgram Exhibit 1 EFM, so offered in evidence photostatic copy of which is attached hereto and made a part hereof by reference.)

(Here follow 3 Photolithographs, side folios 276-278)

Plaintiff Milgram's Exhibit 1. 240A

June 16, 1942. H. H. JACKSON ET AL. 2,286,548

CHECK-OUT COUNTER

Filed July 31, 1941

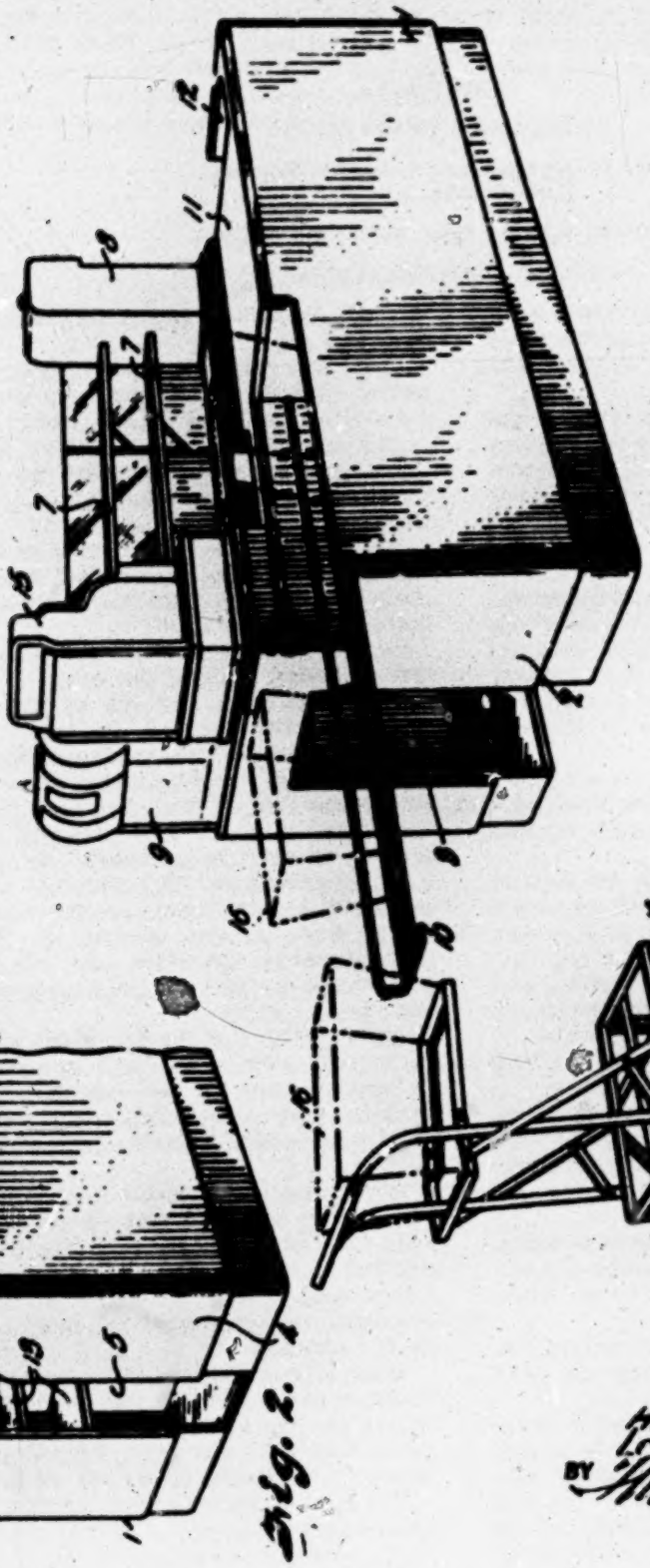


Fig. 1.

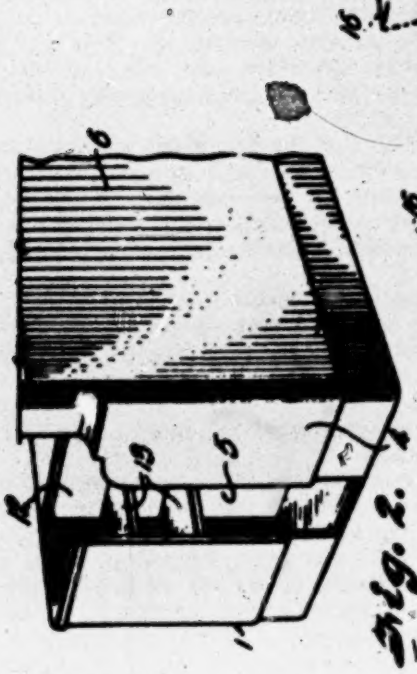


Fig. 2.

INVENTOR.
Hartley H. Jackson.
Leonard Milgram.
BY Hoo & Serfeld.
ATTORNEY.

Patented June 16, 1942 2,286,548

UNITED STATES PATENT OFFICE

2,286,548

CHECK-OUT COUNTER

Hartley H. Jackson and Leonard Milgram, Kansas City, Kans.

Application July 31, 1941, Serial No. 404,828

2 Claims. (Cl. 312—140.1)

This invention relates to improvements in a check-out counter, and refers more particularly to a unit used in grocery markets or stores of the self-service type.

In checking out goods sold in self-service stores, the goods must be handled by the checker and by the customer, and it has been an exceedingly tiresome task for a person to lift the goods from the collecting baskets, check them and prepare a statement, and then sack the goods for delivery.

In the checking operation, it is usually necessary for the checker to lift the basket of goods from a push cart or shopper's carriage onto the counter, check the goods, prepare a statement on an adding machine, and then separately lift each item into a sack before delivering them to the customer.

The present invention is a check counter unit which is arranged to simplify, render more efficient and reduce the labor attached to this checking operation.

Among the advantages of the unit are facility in handling the goods sold, speed of checking through the check counter, accuracy in checking due to less fatigue on the part of the checker, ease in returning the shopping carts and baskets to the store for further use, and the advantage to the customer in having his goods handled at greater speed and with less delay through the checking outlet.

In the accompanying drawing which forms part of the instant specification and is to be read in conjunction therewith, and in which like reference numerals are used to indicate like parts in the various views:

Fig. 1 is a perspective view of the unit taken from the front and left side, and showing a shopper's cart in position for a basket to be lifted onto the slide.

Fig. 2 is a fragmentary perspective view of the opposite side of the counter showing the sack well and its adjustable bottom.

Referring now to the drawing, the unit consists of a front portion 1, a side portion 2 in which is a basket return opening 3, an opposite side portion 4 and an entrance opening 5. At the back of the unit is a rear portion 6, upon which are supported shelves 7. At one end of the lower shelf is a coffee grinder 8. At the opposite end of the lower shelf, a counter 11 forming a part of the side portion 2 supports any of various computing devices such as a scale 9 and a cash register 10. The arrangement of the coffee grinder and scale with the shelves at the back of the unit, is more or less conventional with check-out counters.

From one end of the front portion 1 extends a basket slide 16, which may be of any suitable design, either of solid metal, wood, or, as shown in the drawing, a skeleton welded pipe unit having a free end extending from the end portion 2 of the unit, the opposite end of the slide abutting against a central counter 11.

The basket slide 16 is positioned somewhat below the level of the counter 11, to facilitate handling of the goods from the baskets 16, shown in dotted line on the slide.

At the opposite end of the front portion 1 of the unit, and beyond the counter 11, is a sack well 12, which is cut out of the counter and extends to the floor of the unit. In this sack well are adjustable shelves or bottoms 13, shown in Fig. 2, which may be raised or lowered according to the size of the sack that is to be filled. Any suitable means for vertically adjusting the shelves 13 may be provided. In the construction illustrated in the drawing, a plurality of vertically spaced guides are provided to support one or more movable shelves 13. The top shelf 13 is placed on the guide that will position it at a level best suited to accommodate the particular sack being used.

At 14 in Fig. 1 of the drawing is shown a shopper's push cart or carriage, mounted on casters or rollers, used by the customer to carry the baskets 16 while collecting goods, groceries, meats or other household accessories during a shopping tour.

When the goods have been collected in the basket, the cart is rolled up to the end of the slide in a position shown in Fig. 1. The basket is lifted from the cart onto the slide by the customer, and is slid up to the counter 11, where the goods are lifted from the basket and checked by the checker.

After the statement has been prepared by checking the goods on a cash register 15, a sack is placed in the well 12 by the checker and the goods placed in the sack, basket or other container in which the goods are to be delivered.

It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and sub-combinations. This is contemplated by and is within the scope of our claims. It is further obvious that various changes may be made in details within the scope of our claims without departing from the spirit of our invention. It is, therefore, to be understood that our invention is

not to be limited to the specific details shown and described.

Having thus described our invention, we claim:

1. A check-out unit for self-service stores wherein mobile push carts are used by customers to collect their purchases, comprising front and rear portions joined by a side portion having an opening therein, a central counter arranged above said front portion and having a sack well at one end and a slide at the opposite end, said slide extending beyond the side portion and positioned at a level convenient for transferring heavy articles from the push carts to the slide.

2. A check out unit for self-service stores wherein mobile push carts are used by customers to collect their purchases, comprising front and rear portions joined by a side portion having an opening therein and forming a support for computing devices, a central counter arranged above said front portion and having a sack well at one end and a slide at the opposite end, said slide extending beyond the side portion and positioned at a level convenient for transferring heavy articles from the push carts to the slide.

HARTLEY H. JACKSON.
LEONARD MILGRAM.

[fol. 279] Mr. Scofield: You may cross examine.

Cross-examination.

By Mr. Glaccum:

X Q. 50. You testified, Mr. Milgram, that you have been in the Weingarten stores at Houston, Texas. Do you know Joe Weingarten?

A. Yes, I do.

X Q. 51. When were you first in those stores?

A. Oh, it has been several years ago; I don't recall.

X Q. 52. Well, was it prior to the conception of the structure shown in Milgram Exhibit 1?

A. I don't think so. I think I was there about '41 or '42 for the first time.

X Q. 53. Are you a member of the Super Market Institute?

A. I am.

X Q. 54. Prior to the time of conception of Milgram Exhibit 1, had you seen any publicity regarding check out canvas of the Turnham type?

A. Of the what type?

X Q. 55. Of the Turnham type, referring now to the patent No. 2,242,408.

A. I don't remember whether I had seen that type of check stand prior to that time or not.

X Q. 56. What was the purpose in developing your present type of check stand?

A. We had several reasons. Our primary reason was to make it much easier for our checker.

X Q. 57. The main reason was to get more people through the check stand in a given amount of time than you could otherwise?

A. I said there were several reasons. This was one of them I just mentioned. Another reason is that it was more efficient and we felt that we could speed up our checking operation.

X Q. 58. How long have the Milgram stores been in existence?

A. Well, let me ask you this before I answer. When you say the "Milgram stores," do you mean how long have we been in business?

X Q. 59. That is correct?

A. Approximately 30 years.

X Q. 60. How long have you been on the self-service basis?

A. Since January, 1932.

[fol. 280] X Q. 61. When did you first feel the need or notice a need of some kind of change at your check-out counters?

A. From the very inception of self-service.

X Q. 62. Now, you testified that your Troost Avenue store at 33rd Street was opened in 1937?

A. Approximately that.

X Q. 63. Approximately. Can you tell us, please, what type of counters were in there in 1937?

A. I don't recall exactly.

X Q. 64. Comparing the patent with those that were in there in 1941, can you tell us what were in there in 1941?

A. This is purely a guess but I think the counters that I have previously referred to, and that is the six-foot counters, approximately 33 inches high and two foot wide.

X Q. 65. Those counters had a metal rack to receive the baskets, did they not, an extension?

A. Prior to 1941?

X Q. 66. Yes.

A. I wouldn't know without looking up our records or without getting some further detailed information.

X Q. 67. Referring again to the problem of getting more people through the check-out counter, did that problem become more acute in the late '30's?

A. I would say it has been acute ever since we have been in the self-service business.

X Q. 68. Well, it is a fact, is it not, that in 1938 and 1939, your business generally increased?

A. We have enjoyed a splendid business in all the years we have been in business.

X Q. 69. I am sorry, I didn't quite hear you.

A. We have enjoyed a splendid business all the time we have been in business.

X Q. 70. Now, in 1938 and 1939, manufacturing, generally, increased in connection with the need to supply Europe with war materials. Didn't you find that your grocery business increased at the same time?

A. If you can explain just what you have in mind in connection with our business, so far as our sales and all, I might be able to answer that more intelligently.

[fol. 281] X Q. 71. I am just asking you a question.

A. In connection with our business, the company business, and pertinent questions in connection with sales, I don't care to divulge that information.

X Q. 72. I am not attempting to get any facts or figures, but the testimony of witnesses, generally, in this trial is to this effect, that along around 1938 or 1939 there were a number of new plants opened in various cities and as a result of the increased business generally, the chain stores in particular were pushed for room, for space, and encountered difficulty in handling their customers and getting through check-out counters. Would you say that is a true statement?

Mr. Scofield: The question and previous questions are objected to as argumentative. Now, it may be true that there was this increase in business in some parts of the country, but I don't believe it has been proved or I don't believe there has been testimony in the case to establish that this particular increase was enjoyed in the Kansas City region. I also call the Court's attention to the fact that the witness has answered the question insofar as his own business is concerned, in stating that they have enjoyed an increase in business, generally, from the time that their business began.

Mr. Glaccum: Well, if the witness doesn't want to answer the question, I won't push it. I will withdraw that question.

By Mr. Glaccum:

X Q. 73. Are you familiar with your Troost Avenue store location?

A. Yes.

X Q. 74. Could you tell us whether or not there is a Blue Bird Restaurant across the street?

A. There is.

Mr. Glaccum: I have no further questions.

[fol. 282] Redirect examination.

By Mr. Scofield:

Q. 75. Mr. Milgram, between what cross streets is your Troost Avenue store? Troost Avenue, as you know, runs

north and south, and I was just interested to know what the cross streets were, the east and west streets.

A. To the south of our store property is 33rd Street, to the north of our property on the west side of the street is a short street, I believe it is called the 32nd Street Terrace, and to the north of that street is Linwood Boulevard.

Q. 76. You are not on the corner.

A. We are on the corner of 33rd and Troost.

Q. 77. You are on the corner of 33rd?

A. Our parking lot is on the corner.

Mr. Scofield: I see. That is all.

Recross-examination.

By Mr. Glaccum:

X Q. 78. I might ask a few more questions. Mr. Milgram, I call your attention to Milgram Exhibit 1, which is your patent and check-out counter, and ask you if that was the first check-out counter that you developed, aside from the conventional six-foot by 24 inches, etc.

A. Mr. Jackson and I had been working for some time on the development of a more efficient check stand than we operated in our stores.

X Q. 79. Over a period of years or months or days, or what would you say?

A. Oh, I would say over the period of two or three years.

X Q. 80. Was this the culmination of your efforts?

A. That is right.

X Q. 81. Did you build check stands of the same general character, let us say, before the patented check stands?

A. I don't remember just—I don't remember all of the details in connection with the development of this check stand because it was something that Mr. Jackson and I were working on and I couldn't state specifically just what was built exactly prior to this patented check stand. [fol. 283] X Q. 82. The one shown in the patent is the one you are using today?

A. It is.

X Q. 83. And you can't tell us whether or not there were intermediate steps in the development of that particular check stand tried out?

A. I don't remember the details.

Mr. Glaccum: I have no further questions.
Mr. Scofield: That is all. Will you waive signature?
Mr. Glaccum: Waive signature, yes.

(Witness excused.)

(Signature waived by consent of counsel and the witness.)

Mr. Scofield: Before starting with Mr. Jackson, I would like to be sworn and offer in evidence certain papers that I think will be of value to Mr. Jackson in establishing his dates. In general, they are the office entries and copies of correspondence with my associate when the original search was made.

Mr. Glaccum: I have no objection.

Mr. Scofield: Which resulted as the Jackson patent offered as Plaintiffs' Milgram Exhibit 1.

[fol. 284] DEPOSITION OF THOMAS E. SCOFIELD

THOMAS E. SCOFIELD, of lawful age, being produced, sworn and examined as a witness on behalf of the plaintiffs, deposeth and saith:

Direct examination:

It is requested that the reporter mark entry slip dated March 29, 1941, as Plaintiffs' Jackson Exhibit 1.

(Said Entry Slip, handed to the Notary, was marrked for identification as Plaintiffs' Jackson Exhibit 1, EFM.)

For the record, it is the practice in my office to daily make an entry of work that is done for clients and these entries are put upon the slips such as indicated by the exhibit. At the end of the month, the carbon copies of these slips, which are perforated along the three black horizontal lines, are torn apart and separated and our charges are made from these entries. This particular slip is an original slip taken from the 1941 entries.

It is requested also that the reporter mark carbon copy of a letter dated March 29, 1941, as Plaintiffs' Jackson Exhibit No. 2.

(Said carbon copy of Letter, handed to the Notary, was marked for identification as Plaintiffs' Jackson Exhibit 2, EFM.)

The Plaintiffs' Jackson Exhibit 2 is a carbon of a letter forwarded to my associate, Mr. Dos T. Hatfield, in the National Press in Washington, D. C., requesting he make a search on the Jackson check stand. The letter itself is explanatory of what was being searched.

Mr. Hatfield's reply is in the form of an original letter dated April 2, 1941. It is requested that this letter be marked as Plaintiffs' Jackson Exhibit 3.

[fol. 285] (Said Letter, handed to the Notary, was marked for identification as Plaintiffs' Jackson Exhibit 3, EFM.)

My report to Mr. Jackson on my associate's search is in the form of a carbon copy addressed to H. H. Jackson and dated April 4, 1941. It is requested that the reporter mark this letter as Plaintiffs' Jackson Exhibit No. 4.

(Said carbon copy of Letter, handed to the Notary, was marked for identification as Plaintiffs' Jackson Exhibit 4, EFM.)

With the letter, Jackson Exhibit 2, there was enclosed a blue print and this blue print was returned by my associate, as is indicated by the last sentence in Jackson Exhibit 3. The blue print is before me and I should like to have the reporter mark it as Jackson Exhibit No. 5.

Mr. Glaccum: I understand this is the blue print that you received at that time?

Mr. Scofield: That is right.

Mr. Glaccum: It bears no date.

Mr. Scofield: That is right.

(Said Blue Print, handed to the Notary, was marked for identification as Plaintiffs' Jackson Exhibit 5, EFM.)

Mr. Scofield: Now, before taking Mr. Jackson's testimony, is there any cross examination on these exhibits that have been marked for identification?

Mr. Glaccum: No.

(Witness excused.)

(Signature waived by consent of counsel.)

Mr. Glaccum: I make this observation, that the entire testimony of Mr. Scofield and the exhibits are generally objected to as irrelevant to the case in issue.

[fol. 286] DEPOSITION OF HARTLEY H. JACKSON

HARTLEY H. JACKSON, of lawful age, being produced, sworn and examined as a witness on behalf of the plaintiffs, deposeth and saith:

Direct examination.

By Mr. Scofield:

Q. 1. Please state your name.
A. Hartley H. Jackson.
Q. 2. What is your age, Mr. Jackson?
A. Thirty-nine.
Q. 3. What is your business?
A. Store fixture manufacturer.
Q. 4. Where do you reside?
A. 5506 Wyandotte, Kansas City, Missouri.
Q. 5. Is your place of business in Kansas City?
A. 622 East Third, Kansas City, Missouri.
Q. 6. Are you here in answer to a subpoena which was served on you?
A. That is correct.
Q. 7. Did you hear the deposition which has just been taken of Mr. Leonard Milgram?
A. In part.
Q. 8. Now, as I indicated to Mr. Milgram, we are attempting to establish the dates when the check stands, such as is shown in the patent, Milgram Exhibit 1, were installed in the Milgram stores in Kansas City.
A. I would like to look at Exhibit 1.
Q. 9. We are also attempting to establish the existence of check stands in the Milgram stores prior to the installation of the patented check stands. Let me ask you first, Mr. Jackson, to relate the circumstances, as you recall them, of the development of the check stand as shown in the patent, Milgram Exhibit 1. Do you understand the question?
A. Yes, I will answer that one. As to Milgram Exhibit 1, this is the type of check stand we asked for a patent search to be made on April 4, 1941. The report of the search was given me by Mr. Scofield. The drawing that is Jackson Exhibit 5 is in basic detail of the check stands we have made from that date up to the present date.

[fol. 287] Q. 10. Did you furnish me with that blue print?

A. I did. You have it.

Q. 11. About when was that?

A. I would presume that would be somewheres six months prior to—no, not you. You would have had that——

Mr. Glaccum (interrupting): I would like the record to show that the witness is referring to notes to refresh his recollection.

A. All right. That would be approximately September of 1941—no, it would not.

By Mr. Scofield:

Q. 12. Do I understand you to say you furnished me with the blue print in September, 1941?

A. No, that is wrong. I think Mr. Scofield testified it was in March.

Q. 13. Do you recall about when you first came to see me about this check stand matter?

A. Your records will be better than mine. I would say it would be approximately the date you claim.

Q. 14. Well, I have produced here an office entry indicating that I had an interview with you on March 29, 1941. Have you any reason to believe that is accurate or inaccurate?

A. I have every reason to believe it is accurate.

Q. 15. Does that correspond in any way to the report of the search?

A. Yes, it does.

Q. 16. Which was made you?

A. Yes, it does because on April 4, 1941, I have your letter, the original copy of your search.

Mr. Scofield: Let me see the letter.

Mr. Glaccum: I will stipulate that the search was made and reported on April 4, 1941.

Mr. Scofield: I will request that the reporter substitute the original letter for the carbon copy which has been heretofore marked as Plaintiffs' Jackson Exhibit No. 4.

(Said Original Letter, handed to the Notary, was marked [fol. 288] for identification as "Plaintiffs' Jackson Exhibit 4, EFM, and was substituted for the carbon copy previously marked.)

By Mr. Scofield:

Q. 17. Now, Mr. Jackson, with those dates in mind, can you state about when you furnished me with the blue print, Jackson Exhibit 5?

A. I would say that would be my first call.

Q. 18. That is, your recollection is that you must have furnished it to me about the first time you saw me on the matter?

A. That is right.

Q. 19. I notice that the parts of the check stand in the blue print have been designated by name?

A. That is right.

Q. 20. Is that your handwriting?

A. No, it is not.

Q. 21. Do you recall the circumstances of furnishing me with that blue print?

A. Yes, I do. You asked me the mechanical operation of the check stand and how the customers delivered the baskets to the check stand and how it was checked out, how they were returned to the store, also what the various parts of the check stand were called, at least what we had called them. That is the way I recall it.

Q. 22. Can you identify that blue print as the blue print that you furnished me at that time?

A. Surely.

Q. 23. At the time you furnished me with the blue print, had you made one of these check stands?

A. That is right.

Q. 24. Had any been furnished to Milgram?

A. Yes.

Q. 25. Then you had made and furnished check stands of this type to Milgram as early as March 29, 1941?

A. Well, to make this clear, you asked me if a check stand had been furnished him of this type, yes, there had been a check stand made and furnished him of this type, set up at our factory and examined by all of his store managers, Mr. Nat Milgram, Mr. Leonard Milgram and Mr. Al Milgram.

Q. 26. Mister who?

A. Mr. Al Milgram. This check stand stayed at our plant while various discussions and uses were put to it there at the plant.

[fol. 289] Q. 27. What date was this?

A. I would assume that was some two or three months prior to April 4th.

Q. 28. 1941?

A. These are hard to say because you just don't know. I mean——

Q. 29. Do I understand you to say that you set up one of these patented check stands in your plant a short time prior to the date when you made the search?

A. That is right. Then, you see, they approved that check stand. The one we set up in our plant was temporary in nature, torn apart and we made eight check stands.

Q. 30. Then you had a completed check stand built according to the patent prior to the time you came to see me?

A. That is right.

Q. 31. And this blue print, Jackson Exhibit 5, is a replica or a picture, a drawing of the check stand which you had built and had installed in your plant?

A. That is right. This is the drawing of that check stand.

Q. 32. At that time had you furnished any of these check stands to Milgram?

A. No.

Q. 33. You had not. Now, how soon after did you build any additional check stands of this type, besides the original one you have just mentioned?

A. I get that date from our factory records on which Milgram was invoiced April 19th—no, April 4, 1941.

Q. —How many did you build Milgram then?

A. We made eight of them.

Q. 35. Had they been made or were you making them at that time?

A. To answer you definitely, I can produce records. By memory, I don't know.

Q. 36. Well, now, let me see if I understand you——

Mr. Glaccum: I don't mean to interrupt, but would you bill them before you made them?

A. Beg pardon?

Mr. Glaccum: You wouldn't bill them before you made them?

A. Absolutely not, no.

[fol. 290] By Mr. Scofield:

Q. 37. What is the date of billing?

A. Mr. Milgram in his testimony gave you a date that records the making of those first eight check stands.

Mr. Glaccum: I believe he testified they were installed in April of 1941.

Mr. Scofield: No, he testified——

Mr. Glaccum (interrupting): Or June.

Mr. Scofield: June 20th, that he was billed for these check stands on June 20th 1941.

A. You see, I knew that he had that date; therefore, I made no record of that date myself.

By Mr. Scofield:

Q. 38. Well, would you be able to check that date?

A. Oh, I definitely can check all of them, yes. I have the orders for them.

Q. 39. I would like to have you check the date when the first eight check stands were billed to Milgram.

A. I can do that. I can produce the records.

Q. 40. What happened to this first check stand?

A. It was torn apart.

Q. 41. Was that one of the eight that were later delivered?

A. No, that was just an experimental model where we take plywood and roughly nailed it together, and Milgram's produced several baskets, baskets and basket carriers; this being just a rough model in our plant, we experimented with it.

Q. 42. From recollection, can you state when these first check stands were delivered to Milgram or about when they were delivered?

A. Well, that is coming back to the statement I made a few minutes ago. You would have to go to his figure because I can't remember.

Q. 43. Well, his figure was June 20, 1941. Would that seem to be about the time, having in mind that this patent investigation was made in April of 1941?

A. Yes, I would assume that is correct.

Q. 44. Now, can you check that date when those first eight check stands were invoiced to Milgram?

A. Absolutely.

[fol. 291] Q. 45. Will you do that?

A. Surely.

Q. 46. Do you know where the first eight check stands were installed, in what Milgram store?

A. 32nd and Troost, No. 14.

Q. 47. How are you able to recollect that and not recollect the date?

A. Well, it was sort of an achievement on our part to get something satisfactory, something we thought was pretty good. That is the reason I know what store it went into, because it was definitely on location that the thing was under trial on, which meant additional business to our company if it proved out.

Q. 48. Is it your present recollection then that these first patented check stands were sent to the Troost Avenue store?

A. I know they were.

Q. 49. Did you furnish any check stands thereafter to Milgram of this type?

A. Yes.

Q. 50. Do you recall how many and over what period of time?

A. I would say we furnished them some 30 check stands over the period of three years.

Q. 51. Did you ever furnish them any other type of check stand after 1941, than the check stand of the patent?

A. No.

Q. 52. Are you familiar with the check stand which Milgram has in his stores at the present time?

A. That is right.

Q. 53. Do you know whether he has any check stands besides those that have been furnished by you?

A. I know he has not.

Q. 54. Have you been working very closely with Mr. Milgram with regard to this check stand situation?

A. Yes.

Q. 55. Now, let's go back to the period prior to June of 1941, which we will assume was the date when the first eight patented check stands were furnished. Relate the history with regard to check stands furnished Milgram prior to that time.

A. I was out of the city for approximately five months.

[fol. 292] Mr. Glaccum: From when?

By Mr. Scofield:

Q. 56. From what date?

Mr. Glaccum: I don't mean to interrupt.

Mr. Scofield: That is all right; I have no objection. I was going to ask him myself.

A. January 1, 1938, to May 24, 1938. Upon returning, some few months after that date on May 24th, Mr. Leonard Milgram asked that I come and see him. We started a business relationship whereby we furnished fixtures of all types for his store, and as we got to know each other better, we were discussing problems confronting the super market food field and the question of a check stand arose. What else is there to answer to that question?

By Mr. Scofield:

Q. 57. I asked you to relate the development work which you did with Milgram prior to the 1941 date when the patented check stands were furnished Milgram.

A. Oh, yes. He and I tried one type of method after the other and in approximately the first part of 1939 we come up with an idea of extending the counter top of the check stand out in front of the main working area, whereby the customer could place their baskets and slide them up as their turn came up to have their groceries checked out. We built a model of this at the factory and it was turned down by the Milgram oficials. Then our next attempt was to lower the slide, forming two metal guides to allow the basket to be slipped forward. After seeing this model they thought that there was some merit to it. We made in our factory and delivered to store No. 14 at 33rd and Troost on April 19, 1939, on our order No. G6561, eight check stands. These check stands were a counter and a slide with a stopping position for the basket at the check-out position. These check stands were in service in the Milgram store and we studied them from time to time, having manager meetings, finding out the bugs and the various things wrong with this particular check stand. I would say approximately three months or so before I came to you, we had worked out [fol. 293] a check stand that had all the basic points that this exhibit, Jackson 5 shows. We were then at a point where Mr. Milgram and myself knew we were ready to put

in this style of check stand throughout his organization. That brings it up to the mechanical drawing I gave you.

Q. 58. Now, in your previous answer you have indicated that there was a check stand having an extended counter or slide produced by you and installed in Milgram's Troost Avenue store, No. 14, as early as 1939?

A. That is right.

Q. 59. How are you able to fix that date?

A. Well, you called me and asked if I would look through our records and drawings to try to determine the development of the check stand. I had our factory superintendent spend several hours looking for drawings. The only drawing he was able to produce out of our files in the drawing I sent you.

Q. 60. That was the patented check stand?

A. That is right or any other check stand that we made for Milgram.

Q. 61. That is the only drawing he was able to find?

A. Yes.

Q. 62. Well then, how are you able to say now that you made a check stand with an extended slide or counter back in 1939?

A. You were quite persistent in asking for me to look through various papers. You called me two or three times, and after looking for drawings, I looked through our records and I still couldn't put any particular date. If you remember our conversation, I couldn't find where we had furnished a slide type check stand.

Q. 63. Prior to 1941?

A. That is right, and be able to determine just what date the very first slide check stand come out, as far as manufacture was concerned. I personally didn't put much importance to the matter, being extremely busy myself. I gave the books a quick glance and called it a day. I was [fol. 294] out of Kansas City most of the time, and the little while I was here I was snowed under with work. When we got the subpoena, why, we knew we had to appear and we had to give the record to the best of our ability, so I took the time to go through our records and found an order that called for a slide and on that order it said, "Make this check stand similar to the check stand built on G6561," which gave me a definite order to look for. By having the number of this order, I got this order and saw where we made eight

check stands for Milgram's Food Store at 32nd and Troost that is all.

Q. 64. What was the date of that order 6561?

A. April 19, 1939.

Q. 65. Well, did that order indicate that the check stand furnished had extended slides?

A. No, that order did not, but the order that followed it says that it had the slide similar to Order G6561, which would then determine that Order 6561 had slides.

Q. 66. Now, can you furnish copies of the order dated April 19, 1939, and this later order you have referred to?

A. I can furnish all copies of all check stands made for the Milgram organization.

Q. 67. That is, you can furnish copies of the orders?

A. That is right.

Q. 68. Now, would you look those up and bring them in?

A. I will.

Q. 69. Have you any independent recollection of the design of the check stand that was furnished on that order 6561?

A. I thought I did and upon your request I called Mr. Milgram to help us out in finding out the facts, and he frankly couldn't give a date. He looked through his records and he comes up with the date he gave, which was '41, being the first check stand of the slide type, that is, as far as his records were concerned.

Q. 70. But you have no independent recollection other than what is shown on these orders?

A. Yes, I did have. I told Leonard that I had.

[fol. 295] Q. 71. You did have that independent recollection?

A. That is right, but I couldn't get any positive dates because the bulk of this check stand work started soon after my return from this extended trip I took.

Q. 72. Well, now, at the present time, what is your recollection of what those check stands were that were delivered on Order 6561, April, 1939?

A. You mean their appearance?

Q. 73. Yes.

A. Yes, I can tell you. They were a counter which was typical of the type of counter that Milgram's used.

Q. 74. How big?

A. Approximately six foot long and 30 inches high and 22 or 23 inches deep, to which we attached a slide.

Q. 75. What is the slide made of?

A. Made of plywood, two steel angle irons on both sides of this piece of plywood, with two metal, flat strips of metal running down the center of this extended piece of plywood.

Q. 76. How was it supported?

A. By the plywood and angle irons.

Q. 77. Was it supported from the counter?

A. That is right.

Q. 78. How much of the slide was supported on the counter?

A. Approximately three feet.

Q. 79. How much extended beyond the counter?

A. Approximately three feet.

Q. 80. Was this particular check stand a double counter arrangement so that you had a counter behind the operator as well as in front of the operator, as is shown in the patent?

A. No, this check stand was a counter and fastened onto this counter was a slide. Now, the cash register sat on a counter of its own and in the back of the check stand was a tubular steel separator or partition. That was the check stand that I am describing now.

Q. 81. And it is your recollection that that was the design that was furnished Milgram on Order 6561?

A. That is correct.

[fol. 296] Q. 82. In April of 1939?

A. That is right.

Q. 83. Do you recall what Milgram had in his Troost Avenue store when these eight check stands were delivered there?

A. No, sir.

Q. 84. You don't recall that?

A. No, sir.

Q. 85. Have you any recollection as to whether or not these check stands were later supplanted by the patented check stand?

A. Yes, sir, they were.

Q. 86. You do recall that?

A. Yes, sir.

Q. 87. Do you recall whether or not you furnished any check stands of this type to anyone else besides Milgram in 1939?

A. No.

Q. 88. Did you ever make any more than these eight that you furnished Milgram?

A. Yes, we made the one that is on the order that referred us to the order of April 19th.

Q. 89. Whom did that go to?

A. Milgram.

Q. 90. Do you know where that was installed?

A. No, I don't.

Q. 91. Would your order show?

A. Yes.

Q. 92. Well, now, when we recess here after your deposition, would you go to your plant and get these orders so that they may be offered here in the record?

A. Surely.

Mr. Glaccum: It is stipulated that Mr. Jackson can supply Mr. Scofield with the orders referred to and that they may be marked Jackson exhibits in numerical order.

Mr. Scofield: That will be done.

Mr. Glaccum: And photostats of them put in the record.

Mr. Scofield: Yes.

By Mr. Scofield:

Q. 93. In one of your previous answers you have stated that one of the early experimental samples made in 1939 was turned down by Milgram, one of the experimental sample check stands was turned down by Milgram. What was the reason for this rejection?

[fol. 297] A. Well, the extension of the counter forward. What I mean by "forward" is into the line of traffic of the customer on his way out of the store, was on the same plane as the counter top. They turned this down for the simple reason that they were afraid a customer wouldn't lift the basket that high, which brought about dropping the slide to the level of the basket carrier.

Q. 94. Was that dropping of the slide or lowering of the slide a part of the design of these check stands that were actually furnished in 1939?

A. Yes, it was. We dropped the slide on the first check stand, it seems to me like we dropped the slide around two inches below the working surface of the counter.

Q. 95. What fixed the height of the slide?

A. Nothing to start off with. Nothing fixed the height of the slide because they had various types of baskets and various types of basket carriers. There wasn't anything uniform to work with in their organization.

Q. 96. Then your original slides were attached right to the top of the counter?

A. The original slides were just a continuation of the counter.

Q. 97. A continuation of the counter?

A. Yes.

Q. 98. So they were on the same level as the counter?

A. That was the first model we made at the plant. It never come into use because they turned it down.

Q. 99. Then you lowered the slide?

A. Yes.

Q. 100. And those were the check stands that were furnished?

A. Yes, we lowered them about two inches and we made that first eight like that.

Q. 101. Did you ever use a pusher frame of any kind on these slides in connection with the check stands manufactured for Milgram?

A. What do you mean by "pusher frame"?

Q. 102. I mean some type of pusher to advance the merchandise or the produce of the customer along the slide to a position in front of the checker.

A. Well, definitely our conception of operation is that the [fol. 298] customer does the pushing. Now when you ask about a pusher, the customer's hand is actually pushing the basket forward.

Q. 103. That is, you didn't have any independent——

A. Mechanism?

Q. 103. (Continuing) —mechanism of any sort.

A. No, we did not.

Q. 104. Have you ever employed any such mechanism in any of these check stands?

A. Never have.

Mr. Scofield: That is all.

Cross-examination.

By Mr. Glaccum:

X Q. 105. As I understand it, there is no question in your mind that in July, say, of 1939, the Milgram store on Troost Avenue had an extension counter?

A. No, there is no question in my mind.

X Q. 106. I show you what is identified as Defendant's Exhibit G for identification, and more particularly pictures Nos. 1 and 2, and ask you if that is a slide of the general character you have been describing?

A. It is.

X Q. 107. Did you make that?

A. Yes.

X Q. 108. Can you tell us when you made it?

A. No.

X Q. 109. Would you say it was prior to 1941 or subsequent?

A. I couldn't tell you. I could not tell you.

(Whereupon, discussion was had off the record.)

(Witness examines the drawing.)

The Witness: We did not make these check stands. I will tell you why. These check stands are the ones that I came to you in regard to these people, Hinky-Dinky, in Omaha, and we got all the data on it and they, in my mind, actually infringed on the patents that we held.

Mr. Scofield: You mean the patent that you obtained with Mr. Milgram?

A. That is right.

By Mr. Glaccum:

X Q. 110. Now, after that recollection can you recall when you first heard about these?

[fol. 299] A. Oh, yes, I have all the data on this check stand and we were going to—or I was going to instigate suit against the Hinky-Dinky. In fact, we wrote letters to them, which Mr. Scofield has record of and I think I also have record of.

X Q. 111. Can you tell us whether it was prior to or subsequent to 1941?

A. I think it was subsequent to it. I am pretty sure it is. In fact, I am darn near positive it was.

Mr. Scofield: You mean when we gave them notice?

A. Surely. In other words, it was after, oh, say, a year or maybe a year and a half or two after we secured our patent that this man came down and looked over the Milgram situation and went back to his home town and made them.

(Whereupon, discussion was had off the record.)

By Mr. Glaccum:

X Q. 112. Did you ever, prior to your development of the check-out counter, hear of Turnham's patent?

A. No, I didn't.

X Q. 113. Can you recall when you first saw a slide on a counter, a check-out counter?

A. That was my own patent, the first slide I saw.

X Q. 114. Prior to the one that you developed in 1938 or 1939, you hadn't seen any slides?

A. No, sir.

X Q. 115. And you had never heard of Turnham or Weingarten's development?

A. No.

X Q. 116. So this was your solution to the particular problem of getting more people through the check-out counter?

A. That is right.

X Q. 117. Do you recall when you were first aware of the urgency of that problem?

A. Yes, I do. Being called into the Milgram organization to make store fixtures for them, I told them that there should be some other method of checking out than the method they were using, and I used these reasons why I thought there should be: The average man doesn't like to [fol. 300] push one of these little baby carriage deals, so if you will watch the average man customer in any of these cash and carry markets, they are carrying the basket along in their hand, they stand in line to be checked out and they are putting the basket on the floor, raising it up and grumbling and saying, "Well, Mrs. So-and-So, I am not going to go shopping with you any more," so the idea was to get those baskets up on a slide, relieve him of the load and thereby not have a lot of dissatisfied men customers, and that was the basic though behind it, which is far from important, but just the same that is how it started.

X Q. 118. That was back, as I understand it, in 1938?

A. The latter part, yes. Then as we talked, why, we also knew that at the middle of the day and afternoon we started developing a lot of errors in checking due to fatigue of the checker because most of the checkers were leaning over their counter and picking up the top basket and put it on the check-out counter top and then leaning clear down and picking up the lower basket, and the grocery business being a business of tonnage, there was none of those checkers that would haul into your home, say, a ton and a half or two tons of coal because they were too good for that, but they would actually do the same thing in groceries, so they were all tired out by afternoon, so we thought if we could eliminate that and let each customer be the one to lift the load and slide it up to checking out position, we would save that fatigue on the operator which happened.

X Q. 119. How long have you been in the store fixture business?

A. My company that I represent has been in business for 78 years. I have been connected with the business for 17 years.

X Q. 120. Would you say that there was a great increase in the grocery business in the late '30's?

A. Absolutely.

X Q. 121. Many stores found they had more customers than they could handle comfortably?

A. Yes, their customer traffic increased and particularly [fol. 301] through the innovation of the super market, as we know it, which was fast developing in the latter '30's, stores of much greater floor area.

X Q. 122. Stores of about 12,000 square feet, would you say?

A. Yes.

Mr. Glaccum: That is all.

Mr. Scofield: That is all. Will you waive signature?

Mr. Glaccum: Yes, surely.

Mr. Scofield: Before we close this deposition I would like to offer in evidence the papers that have been marked for identification.

Mr. Glaccum: Don't we have to settle that with the Judge?

Mr. Scofield: Well, yes, I suppose that we will but I think I had better formally offer them. At this time, therefore, I offer the entry marked Plaintiff Jackson's Exhibit 1; the copy of the letter dated January 29th, as Plaintiff

Jackson's Exhibit 2; the original letter of my associate dated April 2nd, as Plaintiff Jackson's Exhibit 3; the report to Mr. Jackson on the search, dated April 4th, as Plaintiff Jackson's Exhibit 4; the blueprint of the check stand as Plaintiff Jackson's Exhibit 5, and will mark and offer the additional exhibits which will be furnished by Mr. Jackson as soon as he has obtained them from his file.

Mr. Glaccum: If you would rather give us photostats, that is all right with me here.

Mr. Scofield: As stipulated in the early part of Mr. Milgram's deposition, photostats of these papers will be offered in place of the original exhibits.

Mr. Glaccum: It is so stipulated.

(Which said Plaintiff Jackson's Exhibits 1 to 5, so offered in evidence, having been previously duly marked for [fol. 302] identification, photostatic copies of which are attached hereto and made a part hereof by reference.)

(Witness excused.)

(Signature waived by consent of counsel and the witness.)

(Subsequent to the taking of the depositions, two additional exhibits were furnished the Notary, which said exhibits were marked for identification as Plaintiff Jackson's Exhibit 6, EFM, and Plaintiff Jackson's Exhibit 7, EFM; said exhibits are offered in evidence, photostatic copies of which are attached hereto and made a part hereof by reference.)

[fol. 303] Plaintiff Jackson's Exhibit 1

Sat. 3-29-1941 TES Hirsch

Time spent re record and exhibits and consideration of settlement agreement with Daly in Waterfill & Frazier concellation

Sat. 3-29-1941 TES Continental

Reviewed disclosure of proposed applications (Nos. 216 and 217)

Sat. 3-29-1941 TES Jackson

Interviewed Jackson re Store Tag Molding and Check Stand searches

Plaintiff Jackson's Exhibit 2

March 29, 1941

Mr. Dos T. Hatfield, National Press Building, Washington, D. C.

Re: Check Stand

DEAR HATFIELD:

There is enclosed a blueprint of a check stand such as that used by the chain store grocery markets at the present time.

This particular stand differs from those in common use in that it has a slide positioned on one side of the stand [fol. 304] and extending out from the stand so that the customer can put the basket of produce on the slide with the least possible effort. It also avoids the necessity of having the checker lift the basket for the customer.

The novelty in the stand resides in the location of the slide and the check counter adjacent or just at the end of the slide in the form of a flat table top. To the right of the check counter you will note an opening or well which they call a sack well. In this well is an adjustable shelf which can be raised or lowered to a proper height so that a sack can be placed on the shelf and the produce placed in the sack in a more convenient manner than setting the sack on top of the check counter and lifting all of the produce up perhaps to the height of a person's head in order to get it into the sack.

Another feature of the check stand is the opening in the front of the stand which permits the checker to kick the baskets out through the bottom of the stand into the store for return. This is called an opening for basket return.

Make the usual preliminary examination and return the blueprint with your report. There is some question in my mind whether we will be able to cover the stand by means of a mechanical or design patent, but I should like to see what pertinent art there is which includes any of the features mentioned.

The panel along the back of the stand is of no importance, as it is conventional.

Yours very truly

S:C

——— ———.

[fol. 305] Plaintiff Jackson's Exhibit 3

Dos T. Hatfield
Attorney at Law
National Press Building
Washington, D. C.
Patent and Trade-Mark Causes
Telephone: National 3618

April 2, 1941

Thomas E. Scofield, Esq., 2600 Fidelity Building, Kansas City, Mo.

Re: Check Counter

DEAR MR. SCOFIELD:

In accordance with your letter of March 29th, I have now completed a preliminary examination relative to the above noted subject matter, and, as a result thereof, direct your attention to the following patents, copies of which are enclosed:

Des.	118,817 Gill	1,887,648	Krueger
	406,966 Strange	2,217,647	Shield
	1,456,175 Borlase	2,235,941	Montgomery
	1,544,949 Smiley	2,237,080	Muse

The investigation has been made to locate patents disclosing a check counter which has a basket slide positioned on one side of the counter and extending outwardly therefrom, so that the customer can put the basket on the slide before reaching the counter. A sack well is provided at the opposite end of the counter and is provided with an adjustable shelf. Also, an opening is provided in the front of the stand so that the checker may kick the baskets out into the store.

[fol. 306] The patent to Muse shows a check counter having an endless conveyor associated therewith and a packing well, the packing well, however, is not adjustable. In this latter connection, note the patent to Borlase which shows a bag holder having an adjustable bottom.

In connection with the basket slide extending outwardly from the check counter note the patents to Shield, Smiley

and Montgomery. The design patent to Gill may be of interest in so far as the opening for the basket return is concerned.

I had considerable difficulty with the classification of this device but I believe that a mechanical application filed on the same would probably be examined in either Class 20, subclasses 1.6 or 1.7 or Class 186 subclass 1. There are a great number of mechanical patents relating to store structures such as shown in the patent to Smiley, and I would suggest that if the mechanical feature of the invention are not met by the art enclosed that you file a mechanical rather than a design patent.

The search in this connection covered Design Class 80, subclasses 1 and 2; Class 20, subclasses 1.6 and 1.7; Class 186 subclass 1; Class 211, subclasses 10 and 12; and Class 248, subclass 97.

The blueprint which accompanied your letter is being returned herewith.

Very truly yours, Dos T. Hatfield.

DTH:1,encls.

[fol. 307] Plaintiff Jackson's Exhibit 4

Thomas E. Scofield

Patent and Trade Mark Causes

Thomas E. Scofield

Henry L. Shenier

2600 Fidelity Building, Kansas City, Missouri

April 4, 1941

Mr. H. H. Jackson, Kansas City Show Case Wks. Co., 3 & Holmes Streets, Kansas City, Missouri.

Re: Check Counter

Dear Mr. Jackson:

A report has been made by my Washington associate on the search which you authorized with respect to the above subject. The patents found in the search are listed below.

Des.	118,817 Gill	1,887,648	Krueger
	406,966 Strange	2,217,647	Shield
	1,456,175 Borlase	2,235,941	Montgomery
	1,544,949 Smiley	2,237,080	Muse

The investigation covered such patents as related to a check counter which has a basket slide positioned on one side of the counter and extending outwardly therefrom so that the customer can put the basket on the slide before reaching the counter. A sack well is provided at the opposite end of the counter and has an adjustable shelf. Also, an opening in the front of the counter permits the checker to return the baskets into the store by kicking them beneath the check stand.

[fol. 308] The patent to Muse shows a store fixture having an endless conveyor associated therewith and a packing well. The packing well, however, is not adjustable. In this latter connection, note the patent to Borlase, which shows a bag holder having an adjustable bottom.

With regard to the basket slide extending outwardly from the counter, note the patents to Shield, Smiley and Montgomery. The design patent to Gill may be of interest in so far as the opening for the basket return is concerned.

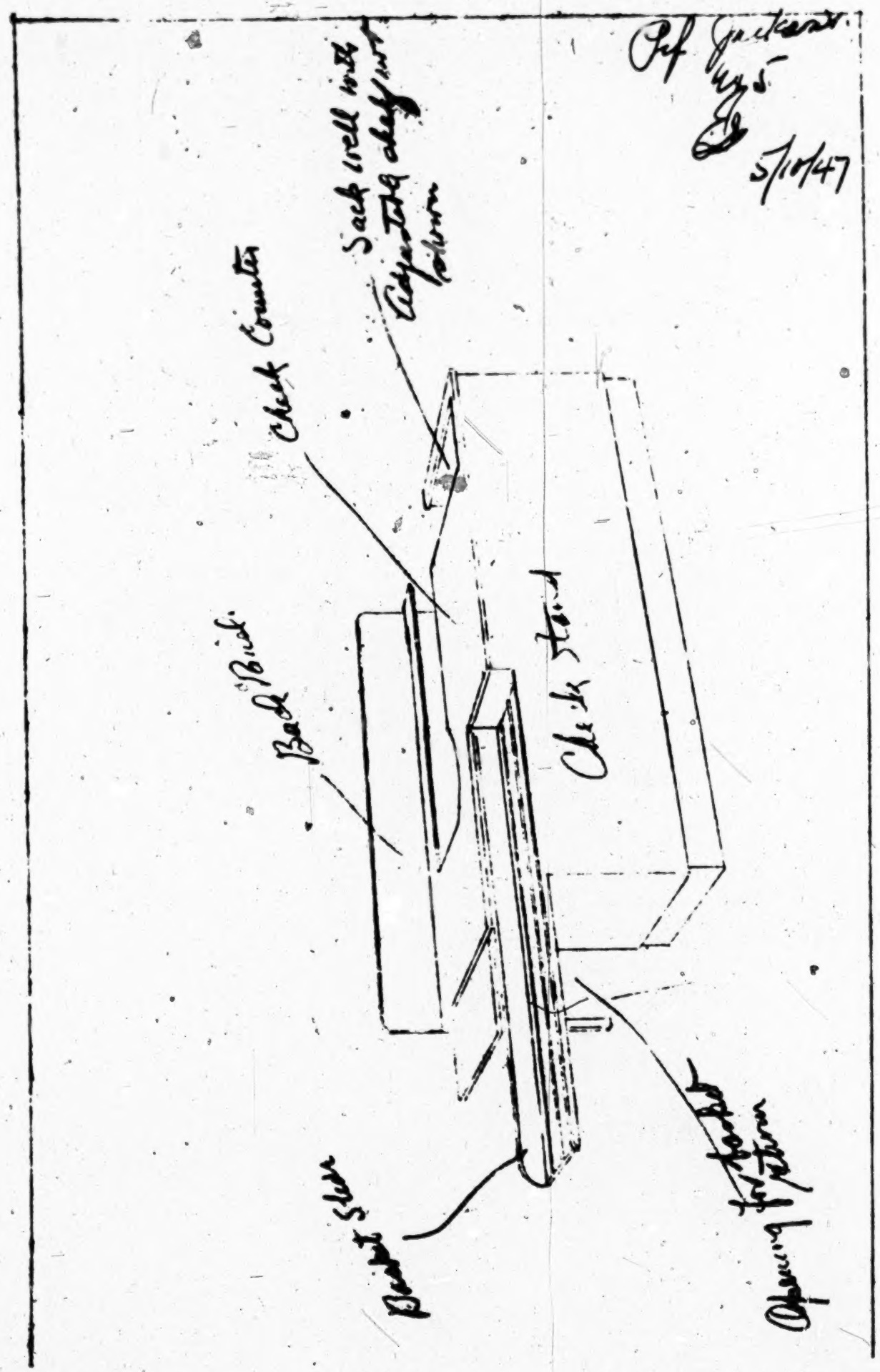
My associate reports that he had considerable difficulty with the classification of this device. There are a great number of mechanical patents relating to store structures such as shown in the patent to Smiley and, if we conclude, after reviewing this art, that the invention is not met, I am of the opinion that better protection would be afforded by filing mechanical, rather than a design patent.

After you have looked over these patents, if you wish to discuss the matter with me, I shall be glad to make an appointment to see you, at your convenience.

Very truly yours, Thos. E. Scofield.

(Here follows 1 photolithograph, side folio 309)

Plaintiff Jackson's Exhibit 5. – Sketch 266A



[fol. 310] Plaintiff Jackson's Exhibit 6

Date Ordered
March 19, 1939
Terms

No. E 6561
Date Billed
Apr 19 1939

Date Wanted

Ship Via

Made By

A. R. Jackson Kansas City Show Case Works Co.

Ship to Milgram Food Stores Inc.
Store #14—3230 Troost Ave.
City

Ordered by Mr. Leonard Milgram
Bill to 2519 Madison Ave.

Length	Catalogue No.	Wood Finish	Price
		Check stands 3'-8½" x 8'-0" long x 2'-8" high consisting of counter 1'-10½" x 8'-0" with maple top and recessed black magnolia base, one end connecting to angle railing with cash register stand at angle, each counter to have pigeon hole bag holders for 8 assorted sizes All of fir except counter top & rail up as per details.	
		@ 60.95	426.65
		T & M + Sales Tax	8.53
			435.18

[fol. 311] Plaintiff Jackson's Exhibit 7

Date Ordered July 19, 1940. Terms — No. E 7256 Date Billed Aug 31, 1940

Date Wanted — Ship Via

Made By

A. R. Jackson Kansas City Show Case Works Co.
Ship to Milgram Food Stores
Store #14
Indep. and Colorado.

Ordered by Mr. Leonard Milgram
2519 Madison

Quantity	Length	Catalogue No.	Wood Finish		Price
			Birch	@ 68	272.00
4			Fir natlac Checkstands with the basket slide as per revamped detail of order #6561.		
				@ 68.00	272.00
				sales tax	5.44
					277.44

See Stock Order S-5236 original & Duplicate figure in this cost.

[fol. 312] In the United States District Court for the Eastern District of Michigan, Southern Division

State of Missouri,
County of Jackson, ss:

I, Emily F. Miles, a Notary Public in and for Jackson County, Missouri, duly commissioned and qualified and authorized to administer oaths and to take and certify depositions, do hereby certify that pursuant to the at-

tached notice to take deposition in the civil cause pending in the District Court of the United States for the Eastern District of Michigan, Southern Division, wherein Evelyn B. Bradley and Joe Weingarten are Plaintiffs and The Great Atlantic & Pacific Tea Company is Defendant, I was attended at the offices of Mr. Thomas E. Scofield, 2600 Fidelity Building, in the City of Kansas City and the County of Jackson and State of Missouri, by Mr. Thomas E. Scofield, counsel for said plaintiff, and by Mr. John H. Glaccum, counsel for said defendant, on the day and date hereinbefore stated; that the aforesaid witnesses, Leonard Milgram, Thomas E. Scofield and Hartley H. Jackson, who were of lawful age, were by me first carefully examined and cautioned and duly sworn to testify the truth, the whole truth and nothing but the truth, and they thereupon testified as is above shown and that the depositions as above set forth were reduced to shorthand by me in the presence of the witnesses themselves and from their statements, the signatures of the witnesses being expressly waived by consent of counsel and the witnesses, and said depositions were taken at the place and time as hereinbefore set out, and that all was so done in the presence of said counsel for said plaintiffs and of said defendant.

[fol. 313] I further certify that I am not attorney or counsel for and have no office connection or business employment of any kind with any of the parties to this action or with their attorneys; that I am not connected by blood or marriage with either of said parties; that I am not interested, either directly or indirectly, in the result of said action.

Witness my hand and seal as such notary at Kansas City, Jackson County, Missouri, on this day of , 19 .

My commission expires January 10, 1951.

Emily F. Miles, Notary Public in and for Jackson County, Missouri.

[fol. 314] Deposition of Lawrence Drake

Deposition of Mr. Lawrence Drake, held at the offices of Munn, Liddy & Glaccum, 24 West 40th Street, New York 18, N. Y., taken on behalf of the plaintiffs on August 15, 1947, at 10 o'clock A. M., before Daniel D. Simon, a Notary Public.

APPEARANCES:

Beaman & Patch, Esqs., 501 Reynolds Building, Jackson, Michigan, Attorney for plaintiffs; by Robert C. Williams, Esq., of counsel.

Munn, Liddy & Glaccum, Esqs., 24 West 40th Street, New York, N. Y., Attorneys for the defendant; by John H. Glaccum, Esq., of counsel.

It is stipulated and agreed by and between counsel for the respective parties hereto that the signature of the witness is hereby waived.

LAWRENCE DRAKE, residing at 93 Kensington Road, Bronxville, N. Y., called as a witness, having been first duly sworn by the Notary Public, testified as follows:

Direct examination.

By Mr. Williams:

Q. Your name is Lawrence Drake?
A. Right.
Q. How old are you, Mr. Drake?
A. 41.
Q. Your present position is what?
A. Editor of the grocery editions of Chain Store Age.
Q. When did you take that position?
A. In September, 1946.
Q. What are your duties, roughly?
A. I select, edit, and write material for the grocery editions of Chain Store Age.
Q. When you say "select" I take it you have a staff of writers who turn in material and you decide what shall be covered?
A. Right.
Q. You were formerly with Kroger?

A. Yes.

Q. And you went with them in 1930?

A. Yes.

[fol. 315] Q. Do you remember which month it was?

A. No.

Q. What did you do for the Kroger Company in 1930? What were your duties or position?

A. My position was that of a trainee for an executive job, expense control section.

Q. In the what?

A. In the expense control section.

Q. Did that mean at that time that they put you into all sorts of different jobs, and you had to learn different jobs through the whole organization?

A. No, I was put through as a store auditor to get the background of the store operation to supplement my accounting background.

Q. Kroger today is using what is called a pre-sorting or pre-sorter cashier's counter; what is the term?

A. It has had many designations. I think a pre-sorter is the most popular.

Q. Will you please describe the pre-sorter in your own terms?

A. Essentially it is a slide or frame without a bottom that is used to permit the movement of merchandise that has been selected by the customer from the position where it is unloaded to the position where it is rung up on the cash register.

Q. By "unloaded" do you mean where the customer takes it out of a basket or something of that nature?

A. Where the customer takes it out of a basket, and whether or not it is on a basket carrier, out of her arms, or shopping bag, or however she might have collected it when she bought the merchandise in the store.

Q. You are now aware of the fact that there has been a patent granted on that particular structure?

A. That I do not know except by report. I have never examined the patent.

Q. Well, you have never examined the patent, but you heard there was a patent on it; when did you hear of this controversy between the Bradley-Weingarten people and the A. & P. people?

A. I cannot definitely place the date on that. I believe it was in 1945, at which time I heard that there was a patent on it, but I didn't hear who had the patent or anything about it at that time.

[fol. 316] Q. But you were told there was a patent on it?

A. I had been told it had been patented.

Q. And you knew that Kroger was using it without licensing from the patentee?

A. No, I do not know whether Kroger had patented or somebody else had patented it.

Q. How did you learn about this patent; that is, who told you?

A. I heard it in Boston, I believe it was, officials of the Economy Grocery Store Company, which has now changed its name to the Stop and Shop.

Q. What was your reaction when you heard of the patent being on that thing?

A. My reaction was wonderment at the fact since a Kroger attorney had assured me it was a principle which could not possibly be patented.

Q. Do you mean at the time you developed it?

A. Yes.

Q. Did he make a search on it?

A. I do not know.

Q. When did Kroger start operating the super markets?

A. I do not know.

Q. Would you say it was before the time you came with them?

A. I have never found any two people who are agreed upon what constitutes a super market. They operated, as of the time I came with them—they had begun to devise a large store which was not then known under the term of super market; they operated self-service stores which were large, but they were not nearly as large as the present self-service stores, and they were not known as super markets.

Q. But they were operating a self-service in 1930?

A. Right.

Q. And it was Kroger which bought up the Piggly Wiggly operation?

A. Right.

Q. Was it a carry-over of the Piggly Wiggly operation, or did they start their own self-service operation?

A. Their first self-service stores were a carry-over of the Piggly Wiggly operation.

Q. And the Piggly Wiggly operation was centered in Cincinnati, wasn't it?

A. No.

Q. Where?

A. It is difficult to say where it was centered. Official headquarters for it were at one time in Cincinnati, but the [fol. 317] center of the Piggly Wiggly operation—it really had no center.

Q. Well, it certainly had a managing or head office, or something of that nature?

A. Right.

Q. Was that in Cincinnati?

A. Yes.

Q. That is what I was after.

A. All right.

Q. Now, in 1937 you had finished this training for this auditing type of job, I take it, and you were then given one of these auditing jobs?

A. I didn't go in training for an auditing job. I had in the meantime been transferred to Cincinnati for the job for which I had been in training, and had later been transferred away from Cincinnati to St. Louis, where I was in charge of the budgetary and expense control.

Q. When did you go to St. Louis?

A. In 1934 or 1933; I have forgotten which.

Q. Is that the head office of a division out there or something of that nature?

A. When I went there it was a branch office, and when I left there it was a division office.

Q. What is the area covered by a branch?

A. The area covered by this particular branch was some 10 per cent of the total number of stores that Kroger had. It was a very large branch, and I cannot outline the geographical area, but it included most of Missouri and part of Illinois; I believe that is all.

Q. And then it later became a division office?

A. Yes, that is right.

Q. And what was this particular division?

A. This particular division covered the Memphis branch, and Little Rock branch, Carbondale branch, the St. Louis branch, Madison branch, and the Peoria branch. It was known as the Western Division.

Q. It looks like the heirarchy of the thing is that the store reports to the branch which reports to the division which reports to the central office in Cincinnati.

A. That was changed during the period that I was employed by Kroger, but is approximately correct for one period in there.

[fol. 318] Q. Do you know what it is or was at the time you left Kroger?

A. At the time I left Kroger that is approximately correct.

Q. You went to St. Louis in 1933 or 1934 and then you were transferred back to Cincinnati?

A. Yes, in 1937.

Q. And what was your job then?

A. I was a market research man. I have no idea what the title of the job would be.

Q. Mr. Drake, you were a market research man. Can you tell me what your duties were? Can you tie it down a little closer as to what you actually did?

A. I studied store location policies; store merchandising policies; I wrote questionnaires; supervised filed workers; I supervised clockers; I made traffic studies; I studied advertising; I studied the preservation of vegetables over a longer period of time; methods of keeping meat—selling meat—made reports on these and many other subjects to the executives.

Q. That sounds to me like it would fall under the broad classification of efficiency expert.

A. It could be so considered.

Q. Well, then, I take it, that in doing this market research work you continually had the problem [illegible]—in general your problem was to find ways of making your operation more efficient.

A. Perhaps more particularly it could be said to be to solve operating problems as they were presented to me.

Q. And in that connection you had the task of keeping abreast of the times or staying ahead of the times?

A. The majority of my work was on assignment where someone else felt that we were not up to date, or where someone else felt that something needed to be done, then I was assigned the job. I didn't have the problem of keeping the company up to date on all phases of its operation

except where I was assigned to study the one particular thing.

Q. In other words, it was the sort of thing of finding out how to keep these vegetables fresh longer on a project, perhaps?

A. Yes, correct.

[fol. 319] Q. In your work when you were employed as a market research man did you feel it necessary to read various trade journals, such as Chain Store Age, with which you are now associated?

A. Yes.

Q. And can you tell me what particular journals you tried to keep up with?

A. Journal of the American Marketing and Research Association. Progressive Grocer. Chain Store Age. And Super Market Merchandising were included. I studied the Journal of American Marketing Research Association; I studied that carefully. The balance I read carefully.

Q. During that time you also found opportunity to visit competitors' stores?

A. Yes.

Q. How often would you take time from your principal place of business to go out and see a competitor's store?

A. Approximately three out of every four weeks were spent away from the office, but of those three weeks only a fraction were spent in competitors' stores. I cannot estimate how large the fraction was. It depended on the assignment.

Q. Did you ever attend the meetings of the Super Market Institute?

A. No.

Q. I believe that Kroger at various times had representatives present at the meetings of the Super Market Institute?

A. Yes.

Q. And those representatives made reports to the Kroger Company?

A. I believe so.

Q. Did you ever see those reports?

A. No.

Q. Through visiting competitors' stores, and the reading of trade journals, you never ran across one of these three-sided bottomless pushers—in any of the visits to competitors' stores or in the trade journals?

A. Prior to the first installation in the Kroger Company I did not.

Q. Were you ever assigned a project as a merchandising research man with which these cashier's counter pushers were associated in any way?

A. Yes.

Q. Or the operation of it?

A. Yes. On or about 1939 I was assigned the problem of developing a method whereby more merchandise could [fol. 320] be handled through the same number of check stands.

Q. Was that about the time that the Kroger Company began feeling the pinch of too small a store and too much business?

A. That was about the time when Kroger began feeling that certain of the locations had more customers than they could handle with their present physical equipment. They had earlier felt the pinch of too small a store.

Q. Well, do you mean by that not only their checking-out facilities but their meat counters, and canned goods display racks, and all the physical equipment in the store, or did they restrict their idea to the checkout counter?

A. My assignment was restricted to the checking out system.

Q. Whereabouts was it they started feeling this pinch.

A. I do not know where it was first felt. The first place that was—the basis of my assignment was the pinch that was felt in the Pittsburgh-Cleveland-Louisville areas.

Q. Were they all felt about the same time?

A. I do not know.

Q. Was there a special reason?

A. In Louisville they reported a development of business because of the additional manufacturing industries that had come to the town.

Q. Bringing with them additional population, I take it?

A. Right, and presumably because of the combination of additional money and additional people they felt the pinch there particularly. Also the Louisville stores were not designed to accept additional business, more so perhaps than in some other areas.

Q. I take it the stores in Louisville were fairly old then?

A. I believe there had been less modernization and less construction in Louisville in the preceding few years than in most years.

Q. Do you know Mr. James Davenport?

A. Yes.

Q. When did you first know him?

A. I first met him in approximately 1938 or 1939.

Q. He was at that time with Kroger's?

A. He was at that time with Kroger's.

[fol. 321] Q. And what was his job at the time?

A. He was a supervisor of stores in the Northern Kentucky area reporting to the Cincinnati branch.

Q. And that was about the same time that you started in on this cashier's counter installation problem?

A. No, that preceded the time I started in on this.

Q. Is he still a supervisor in the Kentucky area reporting to the Cincinnati branch?

A. No, I arranged to have him transfered to me in 1939.

Q. By that you mean, to be put on your staff to help you?

A. Right. In the meantime I had become head of the marketing research department, and he occupied the position I had been transferred to Cincinnati to fill.

Q. You were transferred to Cincinnati to fill that position in 1937, and by 1939 you were the head of the department?

A. Right. Before 1939. I am not sure. It was quicker than that. I am not sure of the exact date without consulting my records.

Q. Then in 1939 you and Mr. Davenport went out to Kansas City to see this Milgram store?

A. No, sir. In 1939 Davenport and I went to Kansas City to work on a store location assignment.

Q. In other words, Kroger needed another store and you were looking for the proper location of it?

A. Kroger wished to relocate a store.

Q. And at that time you saw the Milgram stores?

A. At that time I saw several Milgram stores.

Q. And at that time did you see this Milgram counter arrangement where they had the extension sticking out from one end of the counter on which they slide the baskets?

A. I am not certain of the date at which I first saw the Milgram extension. I believe it was in 1939, but I am basing that belief on the fact that Mr. Davenport says it was in 1939. I have no way of fixing the year.

Q. From your general recollection you can fix whether it was summer or winter? In other words, you can nail it down to the month particularly, can you?

[fol. 322] A. It was during mild weather because the front of the store was open.

Q. I am interested in the Milgram installation and that particular extension on there, and the way they slid the baskets up there; I take it the customer took the basket off the carrier and put it on the extension and slid it up adjacent to the cashier, and that the cashier unloaded from the basket onto the counter and checked?

A. I believe that is correct, but I am not sure whether the cashier checked as she unloaded or after she had unloaded from the basket.

Q. Well, what did she do with the basket?

A. That I do not recall.

Q. What happened to the cart?

A. I do not recall that either.

Q. Supposing the customer came up with one of these double-decker carts, and the bottom basket had to go on the counter, did the customer lift that up and put it on the extension?

A. That was the theory at the time I saw it; at the time I saw it there was some confusion as to what happened to the bottom basket.

Q. You can't remember what happened to the basket or the carts? I can't figure how they would take both baskets on and then push the cart around and get the baskets back, or even one of them, on the cart, without jamming up the aisle.

A. That was the unsolved problem at the time I saw the operation.

Q. But you are not able to fix the date when you saw that thing?

A. I am able to fix the date only on the basis of Mr. Davenport's statement.

Q. When did you first get the idea of installing a three-sided bottomless pusher adjacent to the cashier on the cashier's counter for Kroger?

A. To the best of my recollection it was in 1939, but the development of that was preceded by the testing of several other similar devices; and consequently I am not with any degree of certainty able to fix a date when the piece of

equipment, such as you have described, would be the proper [fol. 323] term to qualify our efforts to speed merchandise through the cashier's counter.

Q. Maybe you can clear it up by telling me what sort of devices you did devise to solve that problem.

A. First we attempted to simply extend the counter so that another person could work on the counter. We also attempted to develop a sorting table on rollers that could be unloaded by another employee and pushed in front of the cashier. We also attempted a small counter dolly for bringing the merchandise up. We toyed with the idea of an endless belt that would bring the merchandise up. And there were many other devices for which we either built models or made drawings, but none of which, other than which I have mentioned, were actually tried in the stores.

Q. Somewhere along through that line you came up with the idea of a three-sided bottomless pusher?

A. Right.

Q. And you are not able to fix the date that you first conceived of that?

A. Not exactly.

Q. Then you do not know when you first installed it in the store?

A. Not exactly.

Q. Do you know the location of the store that you first installed it in?

A. I am not sure of which of two stores was the first one in which we installed the device, that could be best described as you have described this one, but I think that the first one was in Cincinnati or in Louisville. Both of those were installed within a few months of each other and I do not recall which was first.

Q. Did you equip one counter initially or did you equip a whole series of counters?

A. One counter.

Q. What result did you find?

A. It looked most promising, but the end results were not perfect by any means; but it looked very promising on a time study basis. However, in the overall picture it had many difficulties.

Q. Then did you give it a complete test by making a complete installation in one store and by installing them on all of the counters in a particular store?

[fol. 324] A. I do not recall the next step in the development of those, but we experimented in many ways with different ways of using a single counter. I cannot fix the date when we first made that exclusive checking out system within a single store.

Q. You made an affidavit on the grounds of which this case was reopened in which you said you saw in July the Milgram installation. How do you fix that date?

A. I fix that date on the basis of Mr. Davenport's statement and my recollection that it is quite reasonable in view of the other dates that I can fix definitely.

Q. You are not able to fix definitely the year in which you went to Kansas City to make that study to relocate that store?

A. I was in Kansas every year during that period and I cannot fix on which visit I saw this.

Q. Are you aware of the fact that Milgram—Hartley Jackson, who developed the Milgram installation, informed us it was developed in the spring of 1941?

A. I have been informed since that time.

Q. When did you hear that?

A. In this month.

Q. Then how do you account for the difference in dates between what Mr. Milgram said and what appeared in the affidavit?

A. I am unable to account for it.

Q. In other words, you are relying completely on Davenport's recollection of that date?

A. Supported by my own recollection that it is approximately in line with the other dates that I do recall.

Mr. Williams: Your witness.

Cross-examination.

By Mr. Glaccum:

Q. Prior to 1939 was there any particular problem on checking out customers through the checkout stands?

A. If there was I had never been informed of it.

Q. You mentioned that it is a problem in the Pittsburgh-Cleveland-Louisville areas, was there any increase in industry in those areas in 1939?

[fol. 325] A. There was. In preparation for war in Europe those did become manufacturing centers and consequently business boomed.

Q You mentioned in your affidavit that in 1915 or 1916 you had seen some sort of an arrangement in a hardware store. Will you describe that, please?

A. It was a two or three-sided bottomless rack which was used in a hardware store to collect an order, and then was pushed down the counter by the owner of the store or the clerk and dumped in a basket or box at the end of the counter.

Q. What sort of merchandise would be put in that rack?

A. As I recall it nuts, bolts, and small fittings.

Q. Would they take these items out of bins?

A. They took these items out of bins on the back wall behind the service counter and placed them in this rack as they collected the order, and then slid the order to the portion of the counter where the cash register was located, at which point they added up the value of the order collected and sacked the merchandise.

Q. And where was this hardware store located?

A. It was located on the south side of the public square in Martinsville, Indiana.

Q. Do you know whether or not that store is still there?

A. That store is still not there.

Q. Has the plot been rebuilt since that time?

A. It has been remodeled. I would not say it has been rebuilt.

Q. Can you tell us when you saw this installation, approximately?

A. It was prior to 1918, but the exact date I cannot fix.

Q. Were you working at that time?

A. I was not. I was a small boy accompanying my grandfather on his purchases of hardware.

Q. Can you tell us how many times you were in that store?

A. I cannot: I was in there repeatedly, but I have no idea as to the number of times.

Q. Do you recall the name of the owner?

A. I do not.

Q. As I understand it the first rack that you made had a bottom in it?

A. Correct.

Q. Thereafter the bottom was left out?

[fol. 326] A. Eventually we left the bottom out. I believe we made several with the bottom in before we found that we were unable to accomplish the return of the cart, at which time we left the bottom out.

Q. To the best of your recollection what year would you say you made the first one without the bottom?

A. To the best of my recollection it was 1939.

Q. Had you been informed of Turnham's development at the time?

A. No.

Q. But the rack appeared to be the logical solution to the problem?

A. It was the only one which would work without extensive and expensive alterations of our equipment.

Q. When did you first see a rack of this nature in a competitor's store?

A. The first rack that I saw of this nature in a competitor's store was in Cleveland in about 1942.

Q. In whose store was that?

A. In an A. & P. store.

Q. I show you a magazine entitled Chain Store Age, issue of February, 1942, and ask you if you are familiar at all with this magazine?

A. May I see which article you refer to?

Q. Here (handing).

A. Yes.

Q. I refer specifically to page 68 and ask you if you have ever seen checkout counters like this shown there (indicating)?

A. I have never seen this particular checkout counter, but it is very similar to the Milgram installation which I have seen.

Q. And that is similar to the one you had testified you saw in the Milgram store in Kansas City?

A. Right.

Mr. Glaccum: I will ask the reporter to mark that for identification.

(Page 68 of magazine, Chain Store Age, was received and marked Defendant's Exhibit G for identification, August 15, 1947, D. D. S.)

Q. Do you recall seeing any articles in Super Market Merchandising or Chain Store Age covering these check-
[fol. 327] out counters?

A. I saw some articles but I have forgotten which ones.

Q. Can you tell whether they were subsequent to the time that you had designed your counter?

A. They were subsequent to the time I had worked on the counter.

Q. And did they show Kroger's counters?

A. I do not recall the first date when I saw a picture of a counter similar to Kroger's, or which was at Kroger's, but I believe that some pictures were shown at a later date.

Q. Did you consult the legal department of Kroger's Grocery Company about this counter when you designed it?

A. Yes, sir.

Q. With what result?

A. I was told that this device was so simple in its nature and involved only a principle, and there was not a patentable feature about it.

Q. Have you or has the Kroger Company filed application for patents on the development that you made?

A. Since that time they have, but up to that time they had not.

Q. But you had submitted structural ideas on which patent applications were filed?

A. Yes.

Q. But they didn't see fit to file on this particular one?

A. No, sir.

Mr. Glaccum: I do not think I have any further questions.

STATE OF NEW YORK,
County of New York, ss:

I, Daniel D. Simon, a Notary Public within and for the County of Kings, with certificate filed in the County of New York, do hereby certify that the foregoing deposition of Mr. Lawrence Drake was taken before me on behalf of the plaintiffs on August 15, 1947, at 10 o'clock A. M. at the offices of Munn, Liddy & Glaccum, Esqs.; that the said witness was by me duly sworn before the commencement of his testimony; that the testimony was first taken down by me in [fol. 328] shorthand and later transcribed under my direction and supervision; that the testimony is a true and accurate record of my stenographic notes; and that I am not con-

nected by blood or marriage with either of the parties, nor interested directly or indirectly in the matter in controversy.

In witness whereof, I have hereunto set my hand and affixed my official seal this 25 day of Aug. 1947.

Daniel D. Simon, Notary Public within and for the County of Kings with certificate filed in New York County. (Seal.)

Daniel D. Simon, Notary Public, Kings County. Kings Co. Clk's No. 201, Reg. No. 377S8. New York County Clerk's No. 826. Bronx County Clerk's No. 5. Commission Expires March 30, 1948.

[fol. 329] IN UNITED STATES DISTRICT COURT

AFFIDAVIT OF LAWRENCE DRAKE IN SUPPORT OF DEFENDANT'S MOTION TO REOPEN

[Same Title]

STATE OF NEW YORK,
County of New York, ss:

Lawrence Drake, being duly sworn, deposes and says that he is over twenty-one years of age and is the editor of the Grocery Edition of Chain Store Age, a magazine devoted to the chain store industry; that he has been for many years familiar with the grocery field and from 1930 until the year 1944 he was employed by the Kroger Grocery and Baking Company, now known as The Kroger Company. For the last seven years of his employment with said Company he was head of the Marketing Research Department and, therefore, is thoroughly familiar with the operation of super-markets and their various problems, since The Kroger Company operates a great number of super-markets and has operated them since prior to 1937; that he is thoroughly familiar with the problem of passing customers through checkout counters; that this problem first became pressing in or about the year 1939 when a greater volume of business developed with the result that stores designed and built during depression years found themselves handling a non-depression volume of business. It was about 1939 when new industries were developed in certain localities, such as

Louisville, in the vicinity of which a large powder plant was being built, in Cleveland, where a great many light metal industries were started. About this time cash register concerns began converting to fill Government orders and it was difficult to secure additional registers to open additional checkout counters. Approximately at this time your deponent in conjunction with Mr. James Davenport of the Kroger Stores conceived the idea of a pre-sorting counter by watching a checkout system in a Milgrim store in Kansas City in or about July, 1939. In this Milgrim store [fol. 330] there was a metal railing attached to each checkout counter that extended six feet back into the store and was adapted to receive the wire baskets so that they could be slid up to the cashier. Mr. Davenport and your deponent discussed the possibility of using pre-sorting counters and of developing a more efficient operation. Originally he used a three-sided frame 22 inches wide and 30 inches long with a bottom. In or about September of 1939 this slide was installed in Louisville. In October, 1939 another sample was made without the bottom and this slide rested on the counter. A molding around the edge of the counter held it in place. It consisted of a three-sided frame identical with the present pre-sorter and adapted to be operated by the clerk. This slide was installed in a Cincinnati store.

The idea for this slide occurred to deponent from several sources. Deponent recalled seeing a pre-sorting counter in the Housewives Market in San Francisco in 1937. There, while the cashier was checking out one order a clerk placed the next customer's order on the end of the counter and arranged it so that when the cashier was ready the next order could be slid over the counter up to the checkout point, the clerk using his two arms and his chest for this purpose. Deponent then recalled that as a boy, in or about 1915 or 1916, he was familiar with a hardware store in Martinsville, Indiana, located on the South side of the Court House Square in which a three-sided rack was used by the proprietor to fill orders for various sized nuts and bolts. The store had a long counter covered with metal adjacent to which was a series of bins containing various sized nuts and bolts. There was situated on the counter a three-sided bottomless rack of a size slightly smaller than the counter and the operator would push the rack along, stopping at the appropriate bins to place nuts and bolts for the particular order into the rack and then push the rack along until the

next appropriate bin was reached. When he had completed his order he would push the rack to the end of the counter [fol. 331] where the nuts and bolts would be slid into a bag or box for delivery.

It was these two ideas or recollection that promoted deponent to design with the aid of a carpenter the checkout stand and counter pusher which is in common use today, that is, a simple three-sided rack slidably mounted on a checkout counter and held in place simply by molding on the longitudinal edges of the counter. Up until the time of the present controversy, or late in 1944, he had never heard of the Turnham patent or of the counter pushers which deponent is now told were employed in the Weingarten chain, and it was solely the use of the three-sided open bottom rack in the hardware store in Martinsville, Indiana, which deponent had seen in 1915 or 1916 and the extra clerk at the pre-sorting counter at the Housewives' Market in San Francisco which prompted deponent to arrive at the present counter pusher and presorting checkout stand.

Lawrence Drake.

Sworn to and subscribed before me, a Notary Public, this 26 day of May, 1947. Samuel J. Stoll, Notary Public in the State of New York, Residing in Queens Co. Queens Co. Clerk's No. 3001, Reg. No. 472-S-8. New York Co. Clerk's No. 1678, Reg. No. 1182-S-8. Commission Expires March 30, 1948. (Seal.)

[fol. 332] **Plaintiffs' Exhibits**

PLAINTIFFS' EXHIBIT 1

Pages 24-26 of the Super Market Merchandising, January, 1942.

(Here follow 3 Photolithographs, side folios 333, 333a, 333b)

What About Your Checkout Counter?

Location, Design and Operation of the Super Market Check-Out System Is a Science — Inefficient Layouts Can Not Only Cut Potential Volume, But Lose Customers

EDITOR'S NOTE: The check-out section is the Super Market's last contact with the shopper. How the customer is treated at the check-out counter — whether she leaves in good or in bad humor—is a factor every market operator must keep constantly in mind. If she feels she has been cheated or carelessly over-charged by a busy checker who rushed her away from the counter through pressure of a line of waiting customers, chances are the market has lost a cash customer.

As self-service continues to expand, the check-out counter has increasingly become of key importance—not only as a vital department for accurately and efficiently receiving and registering all customer-purchases, but as a highly necessary shopper-relations contact. The checker—the last and in many cases the only personal touch the shopper has in the market—has become the liaison officer of Super Market customer relations. Upon his actions in his contacts with hundreds of shoppers daily lies responsibility for winning or losing customers.

With our country at war and with a genuine labor shortage facing our Industry, it is imperative that the check-out department be geared for maximum efficiency. The cash register companies, as a result of their unlimited experience in the installation of thousands of check-out systems since the very inception of self-service food merchandising, are perhaps the best people to discuss this problem with the greatest authority.

EDM this month has called upon one of these companies to briefly outline some of the definite conclusions regarding the fundamental essentials of good check-out systems. These, as outlined in the following article, should prove of utmost value to all operators.

The lower part of this exhibit appears in next frame.

THE question of how check out stands should be laid out and constructed has probably invited more different opinions than any other feature in connection with Self Service or Super Market equipment.

Experience, naturally derived from the installation of check out systems in thousands of markets, has given us a definite knowledge regarding the fundamental essentials of the efficient check out operation.

First, the stand should occupy a minimum of floor space but still provide ample but not excessive space for the checking of a customer's purchases, as she leaves the store. A counter that is too big is as bad as one too small.

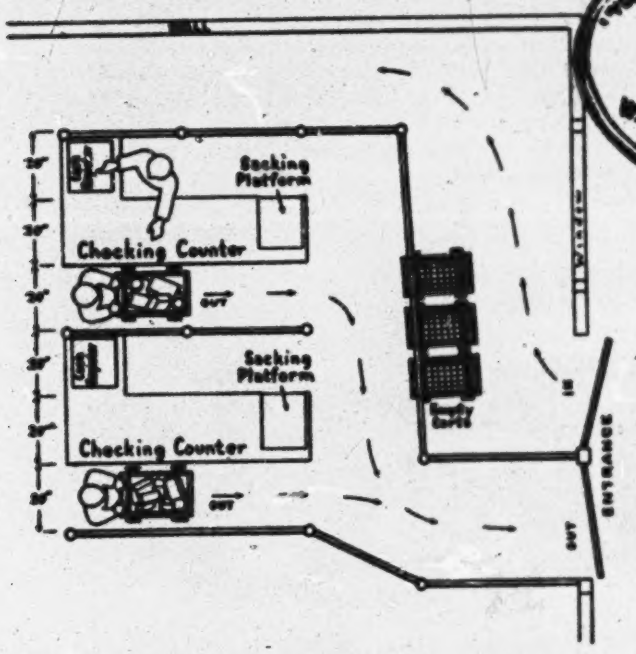
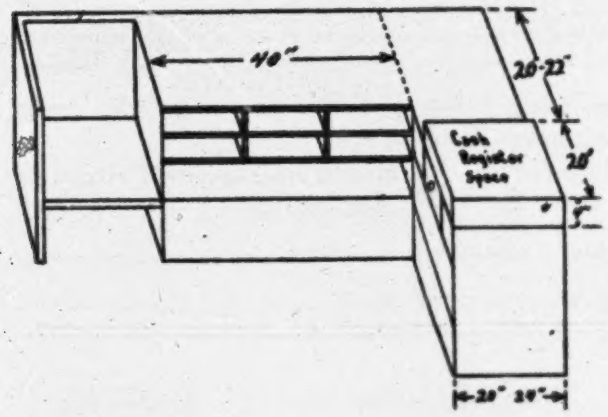


EXHIBIT 1
MAR 21 1947
WALLACE M. WEBSTER
STENOTYPE REPORTER

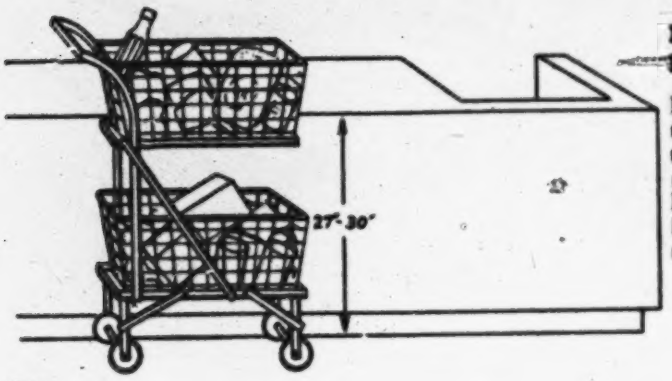
The "L" Shaped Counter

This type layout is an improvement over the straight counter or square used for checking. Note that the register is placed at a right angle to the lane which leaves the checker's left hand in position to handle merchandise.



Length and Width of Counter

Experience has shown that the best length for the checking stand is about 60 to 80 inches while the width should be 20 to 22 inches.



Proper Counter Height

Build the counter not less than 27 inches nor more than 30 inches to eliminate unnecessary lifting. Keep in mind that the height of the counter should be about average arm's length.

The counter must be arranged so that the customer can easily push her cart into the lanes and have the baskets removed safely and conveniently from cart to the checking counter. The lanes must be narrow enough to keep the cart close to the counter and short enough to permit only one customer at a time in front of the checker. It must provide easy disposal of the empty cart with the lease effort and interference to where it will again be accessible to incoming customers.

There are other points that are equally of importance to get the proper and accurate recording of the money received for the merchandise sold, and withstanding all arguments to the contrary, merchandise should be removed from the basket and arranged on the counter before starting to check it. This is the only remedy for "overlooking items" and "errors in listing" them. Consequently, counters must be arranged so that this can be done in the most efficient and speedy manner.

The cash register should be placed and merchandise handled in a way that will permit the customer to see the amount being recorded on the register, together with the item being checked. This not only eliminates interrupting the checker with questions regarding price but it also serves as an automatic check against errors in pricing and plays a very important part in gaining the customer's confidence.

Types of Counters

The perfect "checking stand" has not yet been discovered but experience has narrowed the styles down to several different types or ideas which we will endeavor to explain so that an understanding can be had of their relative merits.

The so-called "L" shaped counter is a great improvement over the original straight counters or squares, which earlier stores used for checking purposes.

In this layout, the register is placed at a right angle to the lane which places it in a convenient position to operate it with the right hand, while leaving the left hand in position to handle the merchandise.

It is strongly advised that the space on the front counter along side of the register should be kept free of merchandise displays as is so often done. If a display or merchandise case is needed at the checking counter, it should be placed on a back fixture. The customer's attention should be focused on the indicator of the register and not on merchandise display. Otherwise the purpose for which the register was purchased is defeated—

The "Push-Under" Checkout Stand

In this type the carrier is pushed under the counter and unloaded by the checker. Note the placement of candy, tobaccos and other small items in the photograph, left, and the coffee mill. The placement of merchandise in this manner does not interfere with the duties of the checker as often occurs when these items clutter the counter.

Plaintiffs' Exhibit 1.
286A

to get accurate accounting for the store in a way that will be pleasing to the customer. Naturally, if the operator falls down at one end he will be short of money—and if he falls down at the other end, he will find himself losing customers.

Length and Width

In general the best length for the checking stand is approximately six inches longer than an average person's "reach" from the register end of the stand, or about 40 inches exclusive of the sacking platform, making the total length of the counter 60 to 80 inches. It has been found that 20 to 22 inches is a suitable width for the top of the counters.

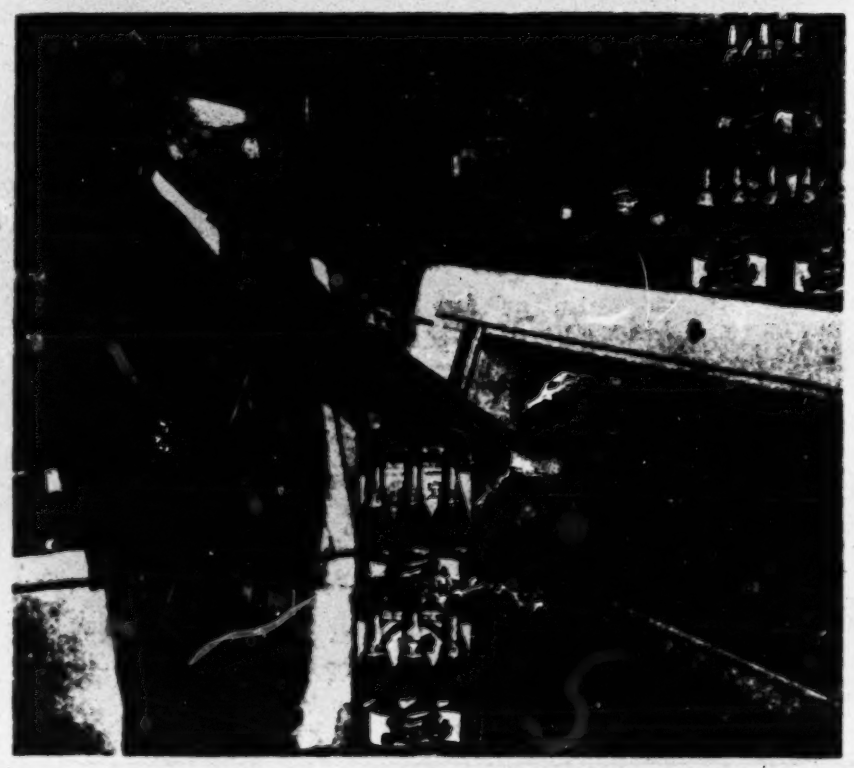
The length of these counters is based on the idea of having all merchandise as near to the checker as possible, and still provide ample space to separate the checked items from the unchecked. The packing platform is added, of course, to provide a convenient method of holding the bag while packing it for the customer.

Another object is to keep the counter short enough to prevent another customer from getting into the lane and placing her purchases on the counter while a previous customer is being checked.

The width was determined on the basis of using the minimum of floor space and still provide enough space for the merchandise and equipment. The lanes in front of the counter are kept narrow so that the carts when pushed into the lanes will be forced near the counter and in reach of the checker. Narrow counters also aid in making the reach for the basket easier for the checker when working alone.

To eliminate as much lifting and unnecessary motion as possible, particularly now that women checkers are used in increasing numbers, the height of the counter should be not less

No. 12—in a series of success stories about Pepsi-Cola Pushers:



"The extra profits I made when I pushed Pepsi-Cola . . . .

. . . put a grand new showcase in my store"

Oscar G. Stump, 13 N. 23 St., Mt. Penn, Pa.

"You bet Pepsi-Cola's 'up front' in my store. Here's why. Last year my Pepsi-Cola sales kept getting bigger and bigger without any help from me. Then one day I decided to give Pepsi-Cola a push—to see what would happen. Boy! I saw plenty! Those *extra sales* started to pour in—and kept coming day after day. That meant *extra profits* for me . . . and a swell new showcase for my store. Take my word for it—push Pepsi-Cola and you're backing a money-maker."

Sure, it's easy to sell Pepsi-Cola. It sells itself. But the *extra profits* don't come 'til you start pushing Pepsi-Cola—and then they don't stop! Give it a try, yourself . . . and pocket your share of those *extra profits*. Stack a good looking display of Pepsi-Cola "up front"—where it can't be missed. The bigger the show . . . the quicker they go.

PUSH

PEPSI-COLA

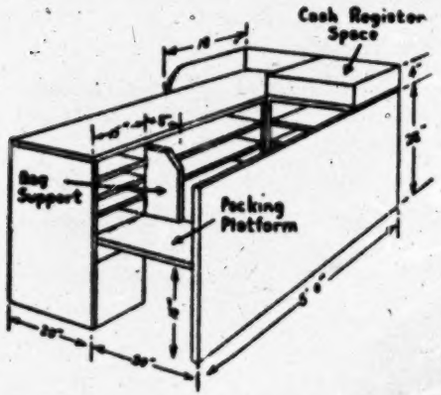
REG. U.S. PAT. OFF.

THE BIG DRINK FOR BIG PROFITS

the counter should be not less

THE BIG DRINK FOR BIG PROFITS

Pepsi-Cola is made only by Pepsi-Cola Company, Long Island City, N. Y. and is bottled locally by Authorized Bottlers from coast to coast.



than 27 inches, nor over 30 inches, or about the height of the bottom of the top basket so that the basket can be slid from the cart onto the counter without lifting. This lower counter also makes it more convenient for the checker to reach over it and get the lower basket from the cart.

It should also be kept in mind that the height of the counter

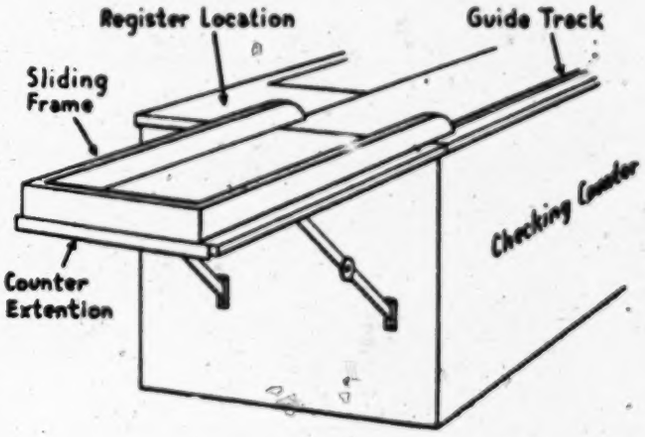
Short Type Counters

Many Supers use this type of short counter, right. It differs from the popular "L" type in that the sacking platform utilizes the end space behind the counter. The sacker stands outside the counter and can assist shoppers.

The Pre-sorting Counter

This counter, right, has been developed to get the maximum number of customers through each checking lane in the minimum of time. A sorter removes merchandise from the carrier and arranges it for the checker.

Sketches and photographs illustrating this article, courtesy of National Cash Register Co.



Plaintiffs' Exhibit 1

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is just about arms-length in height for the average person and enables one to handle and move the merchandise with the least physical effort.

It will be found that new style carts are being built with the bottom basket higher and the top basket lower. This was done to accommodate larger baskets, and also make it easier for the customer to place articles in the lower baskets. The type of cart used will have considerable bearing on the construction of the counters.

Getting the basket from the cart to the counter under varying conditions probably presents the most bothersome function at the checking counters and has resulted in several ideas and designs of counters.

The "Push-Under" style is an excellent example of this. This type of counter is built high enough to permit the entire cart to be pushed under the counter and into the space behind where it will be handy for the checker to remove the merchandise from the baskets. This type of counter itself is not the most convenient height for the checker and sacker to pick up and handle the merchandise. Also, the customers seem to have some difficulty in knowing just how to push the cart through the slot under the counter.

Many Super Markets are using the "short" counter. The principle difference in this counter from the "L" counter is that the sacking platform utilizes the end space behind the counter instead of adding it to the length of the counter.

The arguments advanced for this type of counter are that the sacker stands outside the counter where he can assist customers into the lane, also, where he can easily reach the baskets and dispose of the carts—and the counter takes up less space than otherwise.

It must be said that there is no logical reason why a sacker should stand behind the counter and he does have a much more flexible position standing outside and at the end. This is particularly true when he may be called to carry out a package or divide his time between two lanes which he can do very easily. Likewise, he is in a handy position to assist the customer into the lane with the carts and to remove the basket to the counter. It also has the advantage that the cashier or checker is the only person behind the counter with the money.

At times when no sacker is used, the door to the sacking platform is left open and he can easily step in and out of the counter when required to do so. Otherwise, the stand has the same general dimensions as the other stand.

The Pre-sorting Counter

The presorting counter has been developed to get the greatest number of people through each checking lane. This type of counter needs an additional employe to "presort" the merchandise. When the shopper approaches the lanes she is stopped at the sorter who removes the basket from the cart and properly sorts and arranges the merchandise ready for immediate checking. As soon as the checker completes checking the previous customer he pulls the slide to him and then pushes the empty frame back, leaving all merchandise in front of him ready for immediate listing on the register. In the meanwhile the sorter is again arranging the merchandise of the following customer. By this method the maximum use can be secured from each stand and its equipment. This method has almost doubled the number of customers that can be checked through the lane in a given time.

The principle objection to this type of counter is the space that must be reserved for the sorting operation—also that it requires another employee at each stand and unless the stand is constantly busy there may be considerable time wasted.

However, the sorting end of the counter can be a shelf arranged to be let down during normal times and the method reverted back to the checker doing his own sorting and sacking, and this idea is worthy of consideration in stores having unusual peak periods that must be provided for or limited space for additional checking counters.

However, in describing the arrangement of different types of stands we have only about half covered the subject, for it is the

Again Van Camp's leads with a unique promotion that means PROFITS FOR YOU

Here's a trick you can't afford to miss

Mrs. Josephine Culbertson ——America's most colorful authority on bridge—is leading the more than 18,000,000 American bridge players to Van Camp's through full color ads in these great

National Magazines

LIFE • BETTER HOMES AND GARDENS • THE SATURDAY EVENING POST
GOOD HOUSEKEEPING • LADIES' HOME JOURNAL • WOMAN'S HOME COMPANION

You know this is a campaign that will sell beans—here's the free store material you want to tie in with this powerful sales-making promotion.

Ask local Van Camp's representative or wire or write

Van Camp's Inc. INDIANAPOLIS, INDIANA

The lower part of this exhibit appears in next frame.

Ask local Van Camp's representative or wire or write

Van Camp's Inc. INDIANAPOLIS, INDIANA

However, in describing the arrangement of different types of stands we have only about half covered the subject, for it is the detail routine method of handling the merchandise while listing on the register and doing it accurately. This all requires a definite training of the personnel if we are to get a smooth and easy flowing operation, as it should be done without confusion and apparent rushing the customer at the "check-out" stand. A recent customer study has proven that although a customer may seldom speak of it she resents more than anything the slam bang rush treatment she often gets at the checking stand of a Super Market. There is such a thing as checking a customer too fast, but that will be treated in another article later.

Plaintiff's Exhibit 1

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333b

[fol. 334] Plaintiffs' Exhibit 2

(Here follows 1 photolithograph, side folio 335)

Plaintiffs' Exhibit 2.

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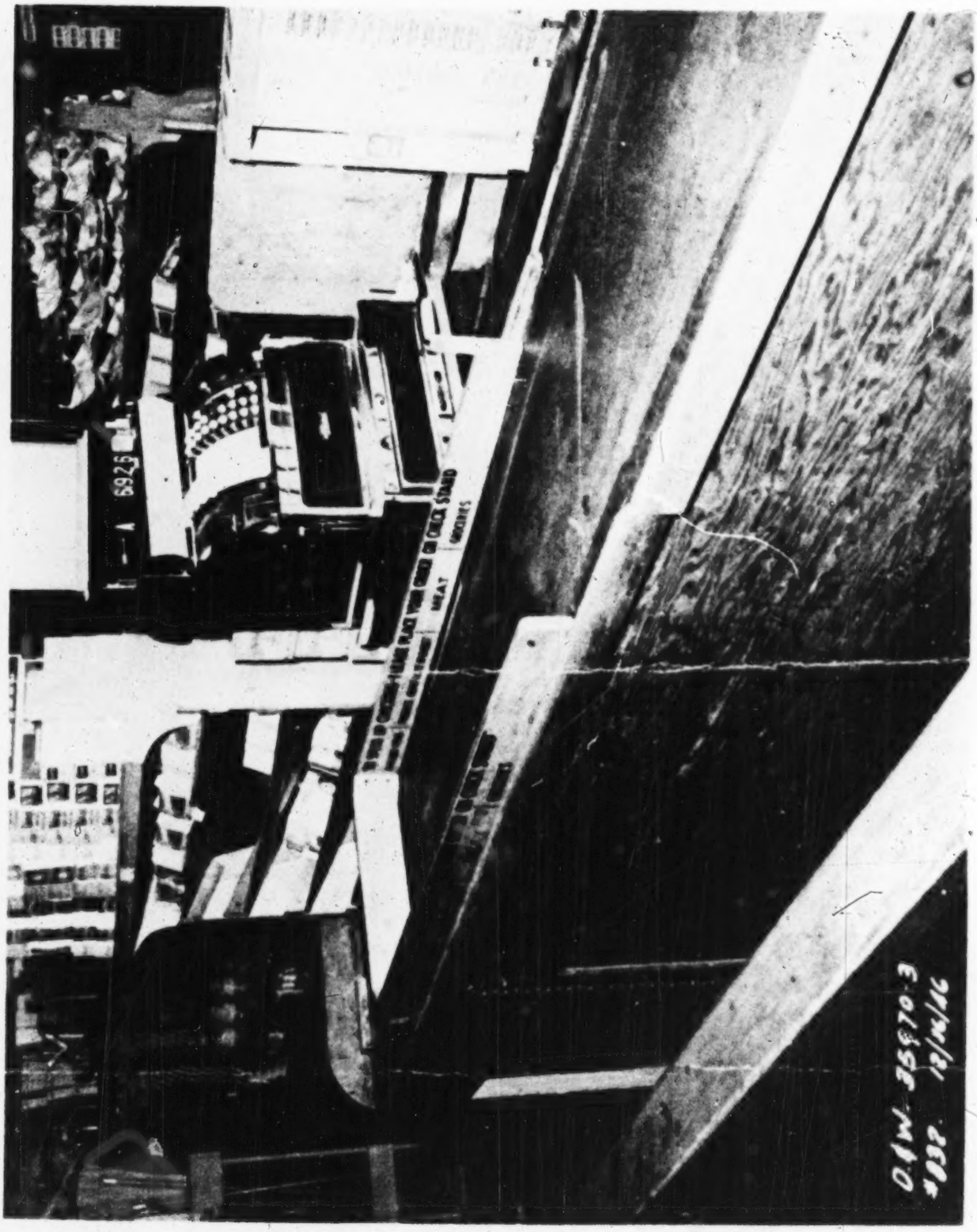

[fol. 336] Plaintiffs' Exhibit 3

Page 168 of Super Market Merchandising, March, 1947.

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(Here follows 1 photolithograph, side folio 337)

2908
Plaintiffs' Exhibit 3.
EXHIBIT 3
MAR 21 1947
WALLACE H. WEBSTER

Manager's Corner

Sign Speeds Checking Out

Food Fair's simple illustration, above, helps speed traffic at its units and is also used as a guide for checker training. The sign is hung where it may be easily seen and tells a complete story in as few words as possible. Food Fair has found that, when introducing any new equipment or idea, resistance is eliminated if nothing is left to anybody's imagination and all details are made crystal clear. A child, reading this placard and seeing the illustration, would know exactly what to do when the checkout stand was reached.

• • •

Super's Ad Pull Surprises All

When Home Stores Super Markets, Chattanooga, ran a Friday evening ad telling the public about a new low price for eight pound units of delicious eating oranges attractively packaged in high-visibility mesh bags, it was not expected that, 24 hours later, bargain-minded customers would relieve them of three carloads of oranges, or 15,000 eight-pound pags.

However, that's what happened. To add to this: Leven Turner, the Super's produce buyer, had to go begging the following Monday morning for more oranges, since three carloads were not enough for the demand!

Central Markets Expands Housewares

With expanding business indicating the need, Central Markets, Albany, N. Y., recently enlarged its appliance and housewares department which was begun only a year ago. The department's former manager, Martin J. Mathusa, was recently named supervisor for the five appliance sections operated by Central in its up-State outlets. By moving the department in the 325 Madison Avenue market toward the front, 20 feet more space was added. More display space has been provided for the larger appliances like washing machines, refrigerators and radios.

• • •

Ben Witrogen Buys Wichita, Kans., Market

Ben Witrogen, who formerly owned and operated the Air Capital Market in Wichita, recently purchased the North End Food Market in the same city from O. L. Brown.

• • • • •

Buys Interest In Super

Frank DeVelice recently purchased an interest in the Marachowsky Food Market, and is now manager of the Beaver Dam, Wis., unit. Stanley Brown, whom he replaces, will be shifted to another market.

• • •

One Super Takes Over Another

Skyline Super Markets, Chicago, recently absorbed McCaskey's Market, Springfield, Ill. Carrying a full line of meats, groceries, fruits and vegetables, beer, and liquors, Skyline is currently featuring the slogan in window displays and ads: "We Pay The Sales Tax!"

• • •

Kroger Market Personnel Change

Marvin Lings, with Kroger Super Markets for 11 years, and formerly manager of its Randolph, Wis., unit, recently succeeded Maurice Peterson as manager of the Berlin, Wis., market. Mr. Peterson was transferred to a Fond du Lac outlet.

• • •

Leases Super To Take Vacation Jaunt

Illness making it difficult to continue as owner-operator of the Home Town Super Market, Fremont, Mich., Carl Peters recently leased his business for an indeterminate period and departed on an extended trip through the southern states. Mr. Peters has been active in the market field for 16 years, ten of which were at Hardy Dam, Mich., and six at his present location.

(Continued on Page 170)

[fol. 338] Plaintiffs' Exhibit 4

August 23, 1944

The Great Atlantic & Pacific Tea Co., Graybar Building, New York City, N. Y.

Gentlemen:

Our firm represents certain parties holding patent rights which are being infringed by the counter pusher you have recently installed in a great many of your super markets.

At the present time we are in the process of formulating a licensing policy. It is our information your organization was the first to commercially adopt the improvement in question and that your leadership has been followed by at least one and perhaps more of your competitors. In view of this situation we would prefer to discuss this matter with the patent section of your legal department before serving any formal notice of infringement or attempting to formulate a license agreement which might be of interest.

We would appreciate having you advise us by return mail of the name and address of the persons in your organization who handle matters of this kind. In this connection it is anticipated that perhaps this matter would be referred directly to some patent law firm outside of your organization with whom you entrust matters of this nature.

Respectfully yours, Beaman & Langford, by ——, ——.

TFB:RM, cc—Mr. Herbert N. Bradley.

[fol. 339] Plaintiffs' Exhibit 5

September 7, 1944

Munn, Liddy & Glaccum, 24 West 40th Street, New York 18, N. Y.

Attention: Mr. John H. Glaccum

Gentlemen:

The writer was very pleased to be informed by your letter of August 30th that your firm represents the Great Atlantic & Pacific Tea Company. Several years ago we had a matter involving the Dzus fastener patent up with you, and as a result I was very royally entertained by Mr. Dzus on Long Island.

Several years ago Mr. Herbert N. Bradley, manager of one of the A & P Super Markets, brought to our attention a development in counter accessories which ultimately matured into United States patent No. 2,317,438. Prior to the time A & P adopted its present counter accessory which is covered by the claims of this patent, the development was taken up with the divisional office. As to what extent A & P were encouraged to adopt their present counter accessory as a result of the disclosure of the Bradley device, we are not informed.

In order to improve Mr. Bradley's licensing position under his patent No. 2,317,438, upon our advice, Mr. Bradley secured an exclusive license with the right to sublicense others under the Turnham patent No. 2,242,408. I believe you will find upon investigation that the counter accessory recently adopted by A & P, Kroger and perhaps others, more closely approaches the specific form shown in the Turnham patent. However, it is our opinion that the accessory comes within the claims of both the Bradley and Turnham patents.

Our client has only one desire and that is to encourage the adoption and continued use of counter accessories of the type now being widely installed in Super Markets. [fol. 340] With this purpose and desire in mind, Mr. Bradley will shortly organize a company for the purpose of manufacturing, installing and servicing such accessories. The use of such installations will then be licensed at a nominal yearly royalty per counter.

We have deemed it advisable to approach A & P first on our licensing thoughts. After you have had an opportunity to make a preliminary survey of the matter, we will appreciate an opportunity to discuss the question of infringement and licensing with you in detail.

Respectfully yours, Beaman & Langford, by ——, ——.

TFB:RM, cc—Mr. H. N. Bradley, Mr. J. Weingarten.

[fol. 341] Plaintiffs' Exhibit 8

(Letterhead of Munn, Liddy & Glaccum)

August 30, 1944

(Stamped): Received Sep. 1, 1944. Beaman & Langford, Jackson, Michigan.

T. F. Beaman, Esq., Beaman & Langford, Reynolds Building, Jackson, Michigan.

DEAR MR. BEAMAN:

Your letter of August 23, 1944, addressed to The Great Atlantic & Pacific Tea Co., has been referred to this firm as their patent counsel.

We note your statement to the effect that you represent certain parties holding patent rights which are being infringed by the counter pusher employed by The Great Atlantic & Pacific Tea Company in their stores.

In order that we may be better informed on the subject we would very much appreciate your advising us of the number and date of issuance of the patents involved. We would then be in a position to discuss the matter further.

Very truly yours, Munn, Liddy & Glaccum, by John H. Glaccum.

JHG:b

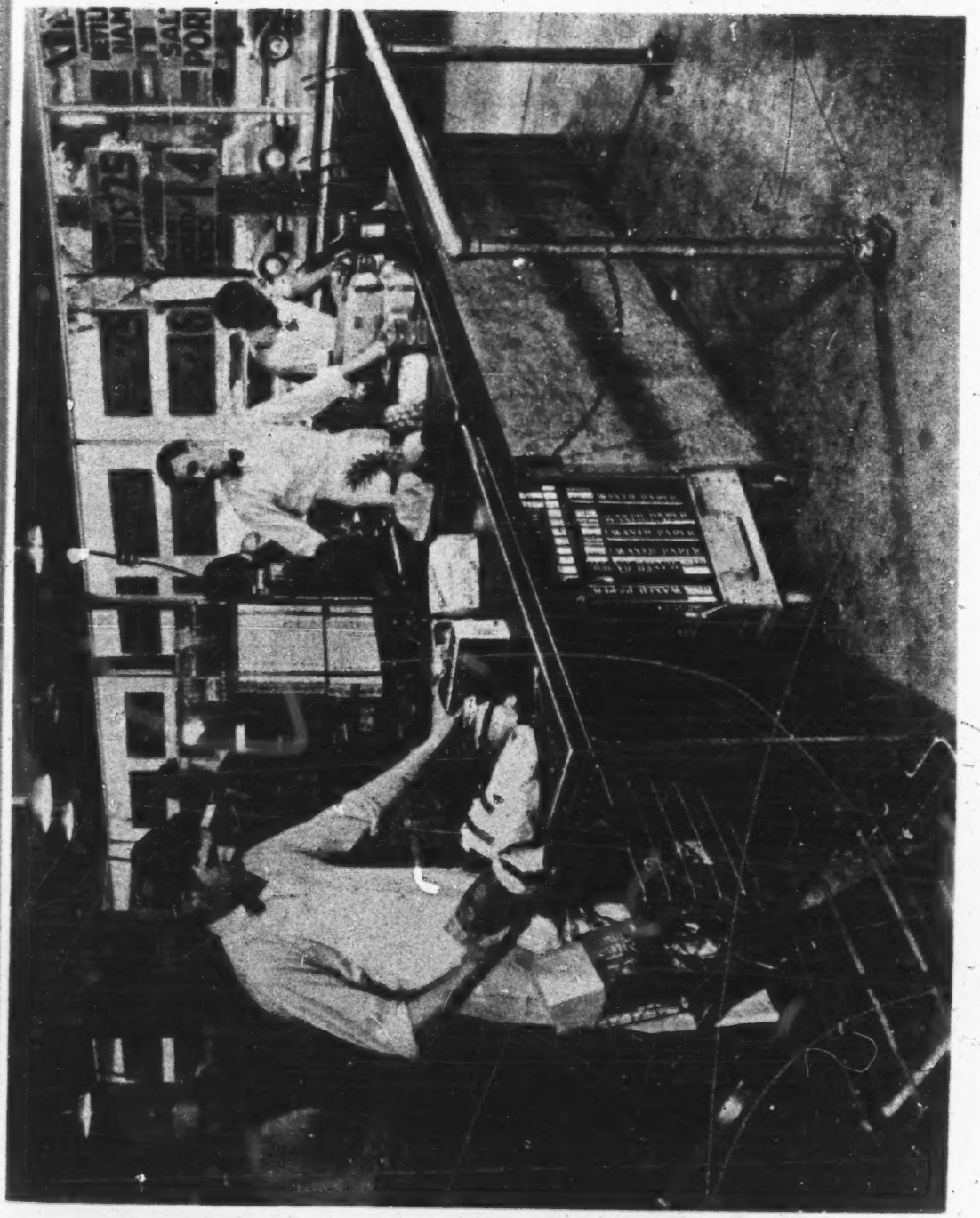
[fol. 342] Plaintiffs' Exhibit 9

Photograph showing Checking Counter at A. & P. Super Market, West Mich. Avenue, Jackson, Mich. (Photograph taken for Beach Mfg. Delivered June 10, 1940.)

(Here follows 1 photograph, side folio 343)

Plaintiffs' Exhibit 9.

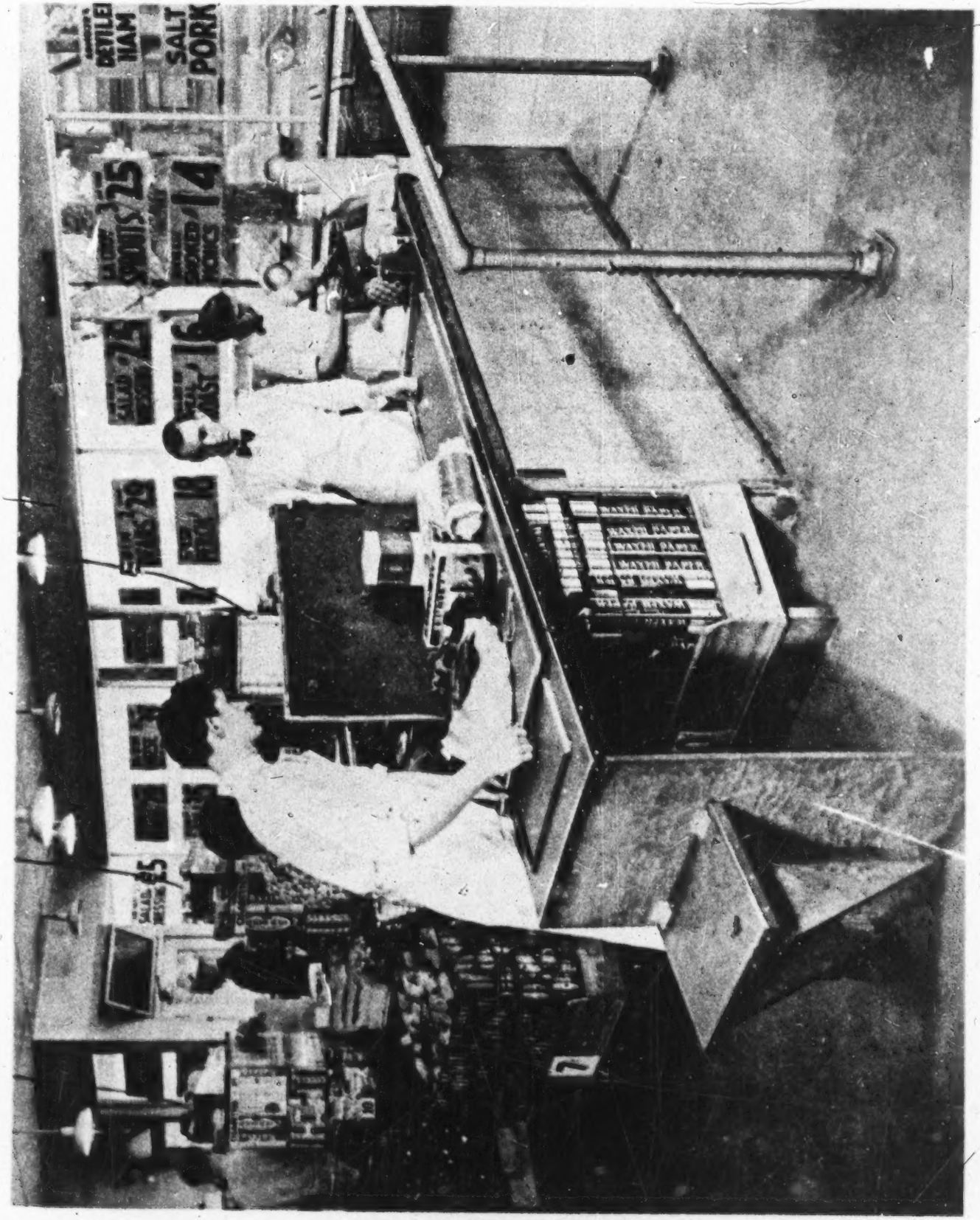
294A



[fol. 344] Plaintiffs' Exhibit 10

Photograph showing Checking Counter at A. & P. Super Market, West Mich. Avenue, Jackson, Mich. Photograph taken for Beach Mfg. Delivered June 10, 1940.)

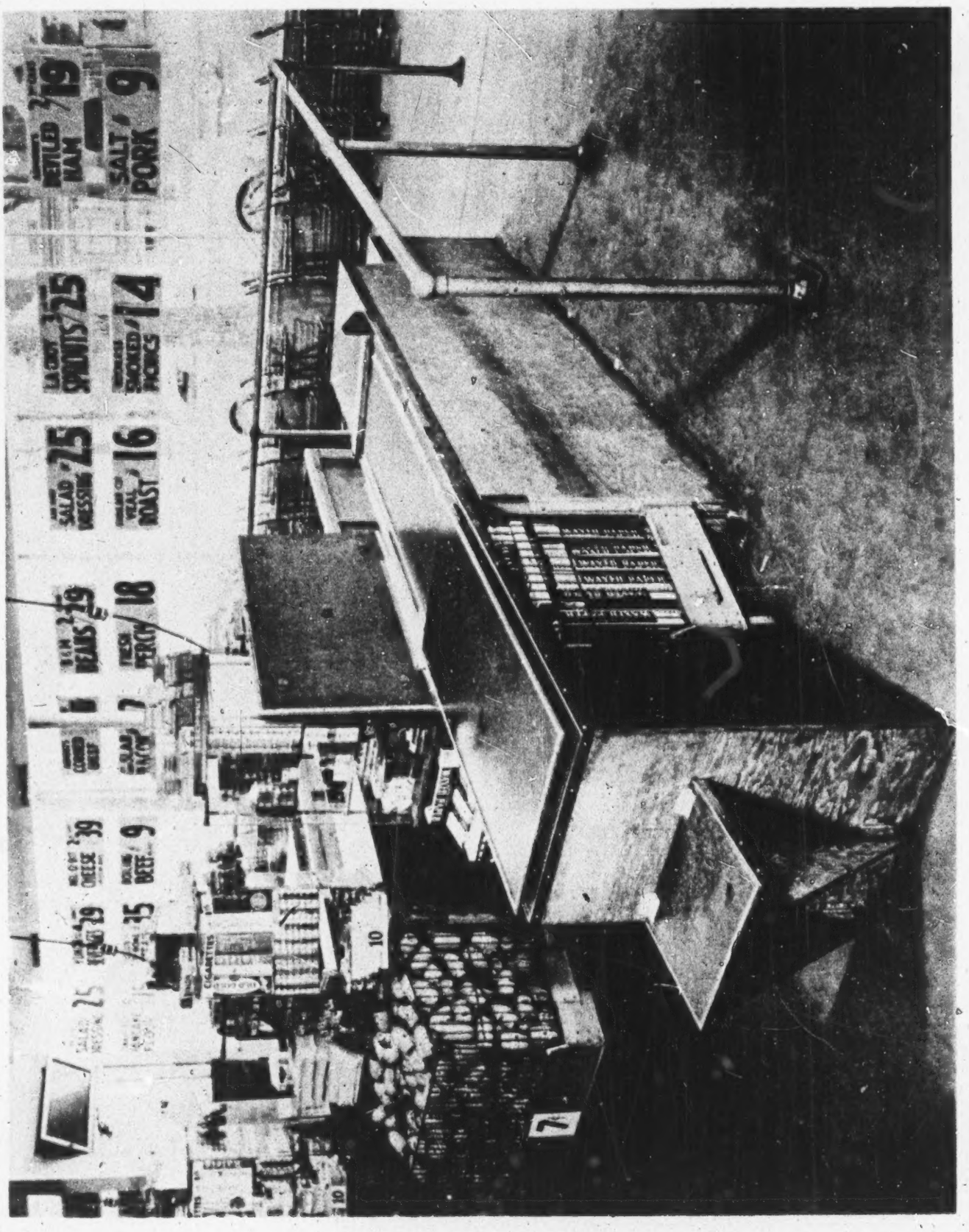
(Here follows 1 photolithograph, side folio 345)


BOILED HAM
SALT PORK

[fol. 346] Plaintiffs' Exhibit 11

Photograph showing Checking Counter at A. & P. Super Market, West Mich. Avenue, Jackson, Mich. (Photograph taken for Beach Mfg. Delivered June 10, 1940.)

(Here follows 1 photolithograph, side folio 347)


SALAD DRESSING 25
BOILED HOCKS 14
SALT PORK 9
BEEF 9
CHEESE 39
BEANS 19
PEAS 18
VEAL ROAST 16
SPROUTS 25

[fol. 348] Plaintiffs' Exhibit 12

U. S. Patent 2,317,438, issued to Herbert N. Bradley, April 27, 1943.

Plaintiffs' Exhibit 13

Wooden model of Check Out Counter.

(Physical.)

Plaintiffs' Exhibit 12. 301

April 27, 1943. H. N. BRADLEY 2,317,438

CHECKING STATION FOR SELF-SERVICE STORES

Filed March 22, 1940 3 Sheets-Sheet 1

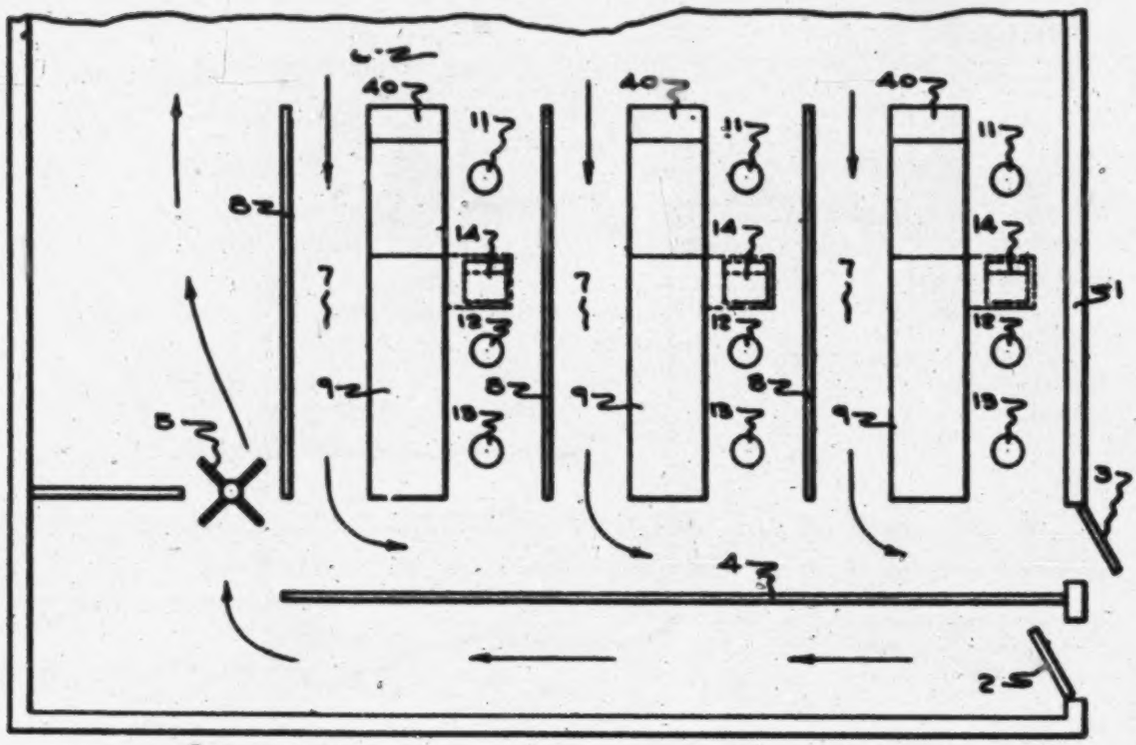


Fig. 1

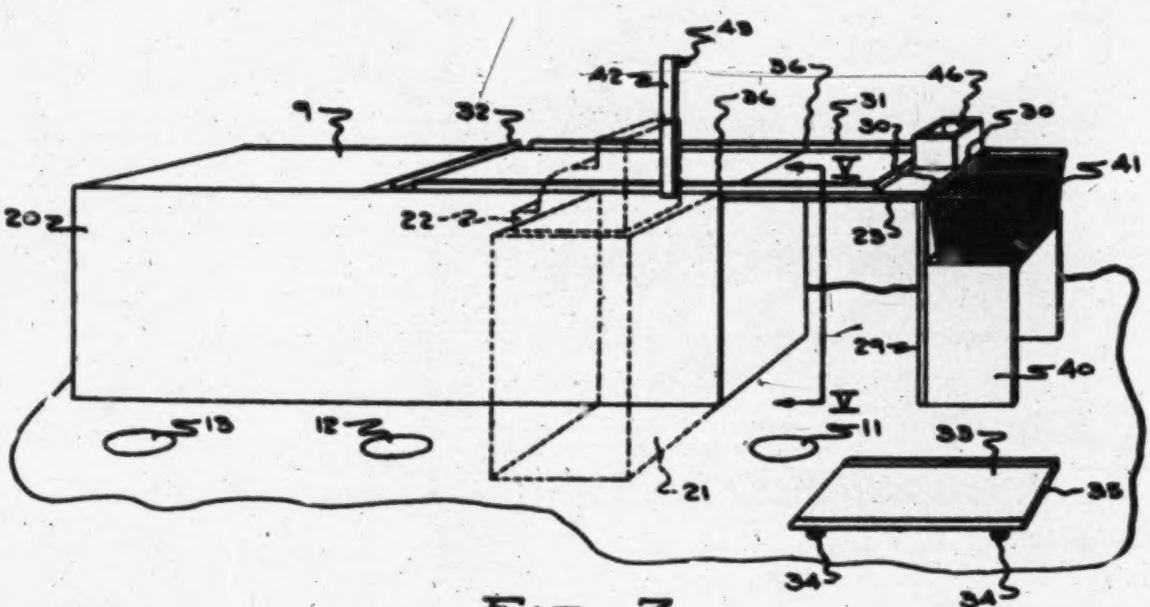


Fig. 2

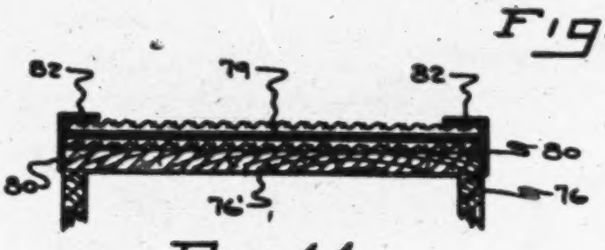


Fig. 11

Inventor
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By Beaman & Ingold

Attorneys

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Plaintiffs' Exhibit 12

April 27, 1943. H. N. BRADLEY 2,317,438

CHECKING STATION FOR SELF-SERVICE STORES

Filed March 22, 1940 3 Sheets-Sheet 2

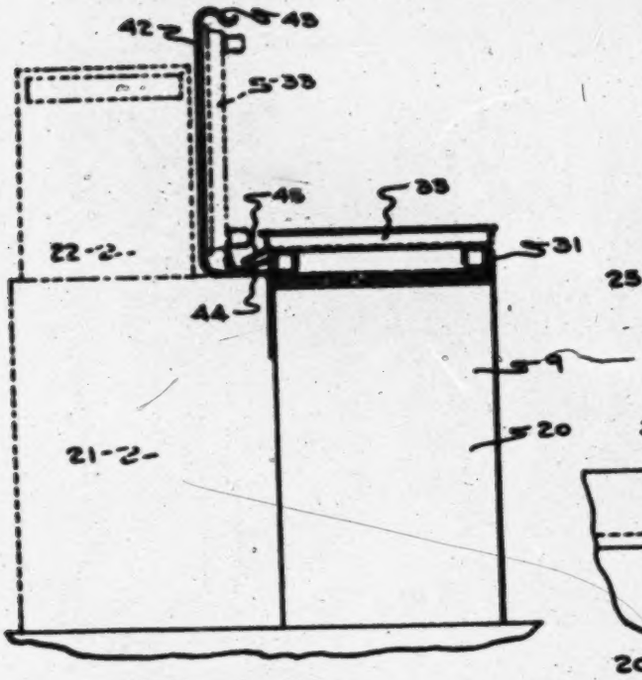

Fig. 5

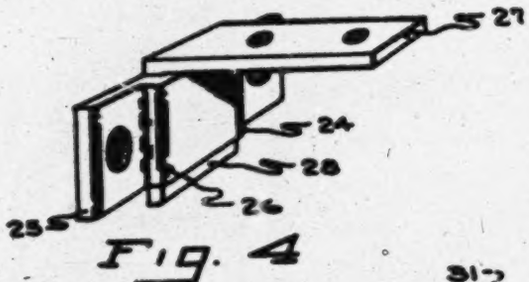

Fig. 4

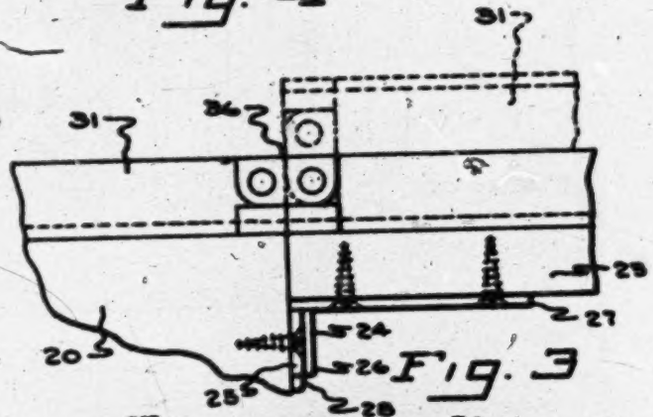

Fig. 3

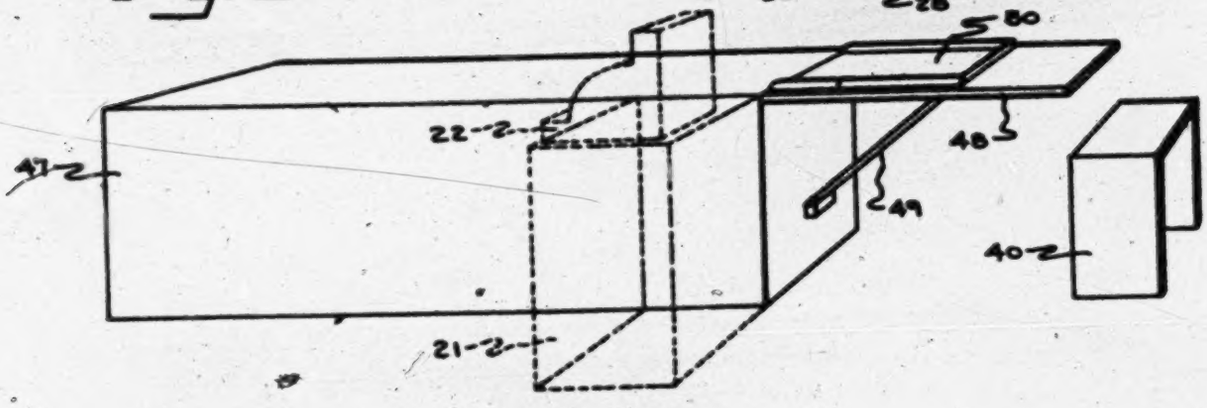

Fig. 6

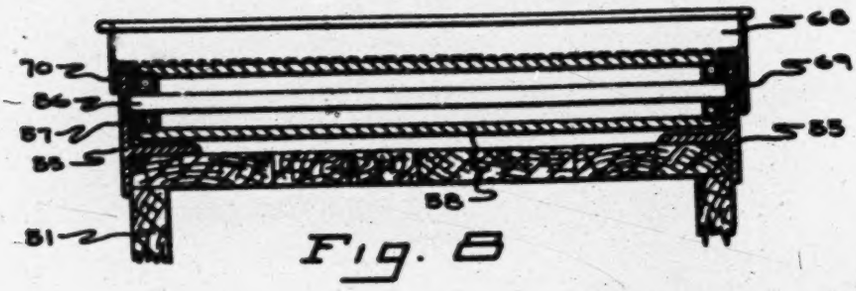

Fig. 8

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April 27, 1943. H. N. BRADLEY 2,317,438

CHECKING STATION FOR SELF-SERVICE STORES

Filed March 22, 1940 3 Sheets-Sheet 3

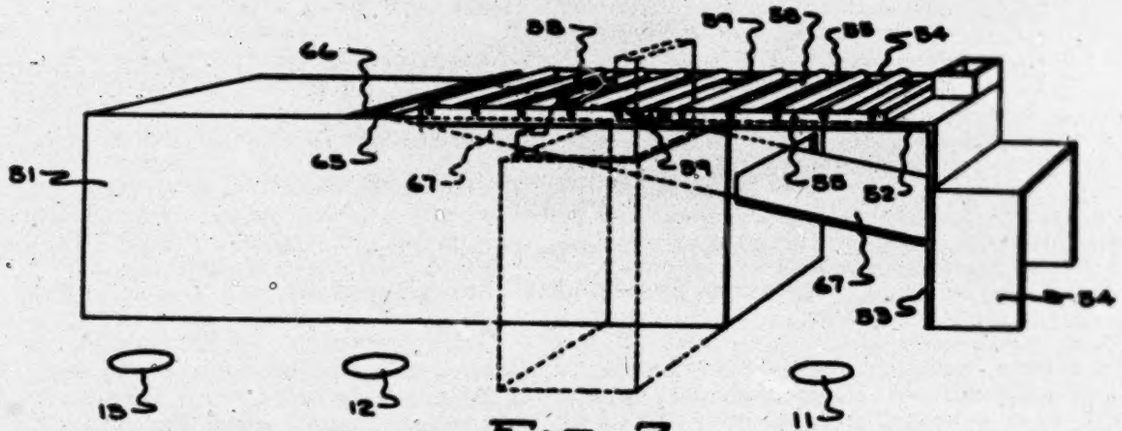

Fig. 7

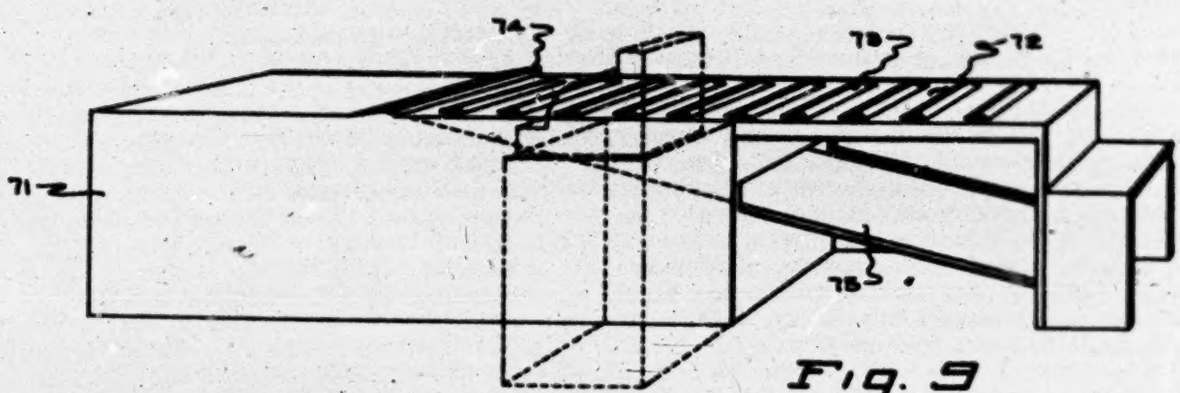

Fig. 9

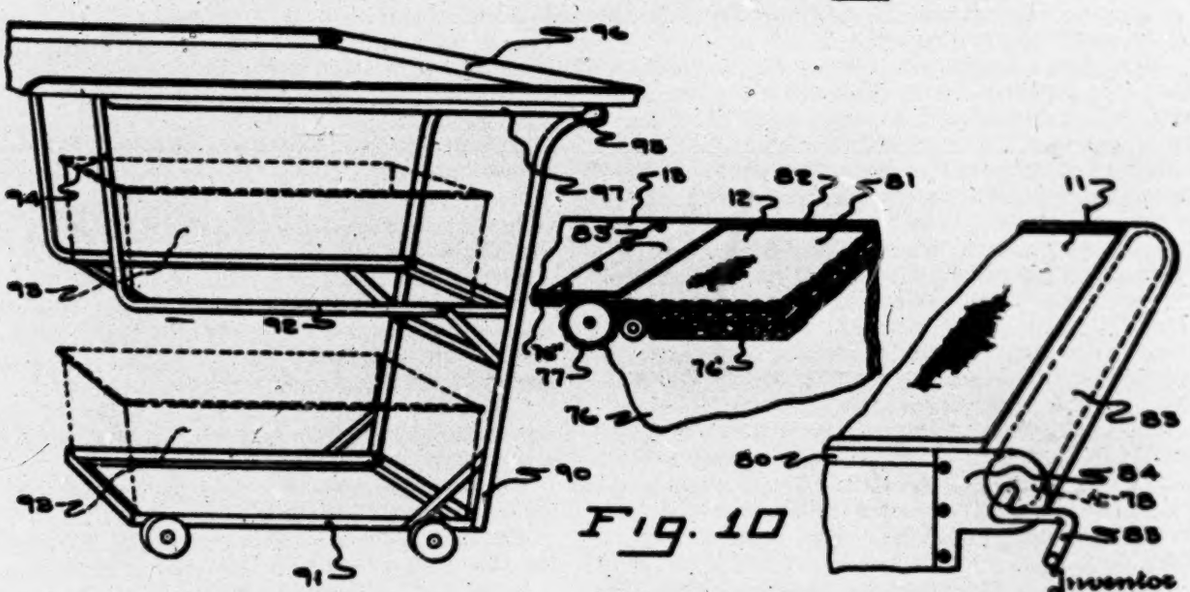

Fig. 12

Fig. 10

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Plaintiffs' Exhibit 12

Patented Apr. 27, 1943

2,317,438

UNITED STATES PATENT OFFICE

2,317,438

CHECKING STATION FOR SELF-SERVICE STORES

Herbert N. Bradley, Detroit, Mich.

Application March 22, 1940, Serial No. 325,252

8 Claims. (Cl. 186—1)

The present invention relates to checking stands or stations for self-service stores and more particularly to an arrangement for efficiently expediting flow of traffic therethrough.

In one widely used system employed in self-service grocery stores, customers select the merchandise desired from shelves and place it in baskets, which are supported by wheeled carriages pushed by the customers. When each customer has selected as much merchandise as he wants, he wheels his carriage to the checking stand. The checking stand consists of a bench, on one side of which a checker and a bagger stand, at a checking station and a bagging station respectively, and on the other side of which is a passageway for the customer with his carriage. The checker reaches across the bench, lifts the customer's baskets of merchandise from the carriage, places them on the bench, unloads them, checks them and receives payment therefor from the customer. The bagger then takes the merchandise and places it in bags ready to be taken out of the store.

This system is not satisfactory for the reason that the checkers in reaching over the benches at the checking stands in order to lift the customers' baskets of merchandise from their carriages often physically injure themselves. Furthermore, when the capacity of a checking stand is not sufficient to handle the traffic that must pass through it, it is necessary to add one or more checking stands. In actual practice, there are usually several. However, as each checking stand is added, it is necessary to add an additional cash register for the use of the checker. Additional cash registers are not only expensive, but also the adding of additional cash registers requires additions to the number of men which must handle money and increases the bookkeeping which must be done, not only in the store but in the main offices of the region in which the store is located, when the store is of a chain type.

According to the present invention, which is particularly adaptable to, but not limited to, grocery stores, the foregoing objectionable features of the stands now largely in use as explained above are eliminated by adding to each stand an unloading station at the opposite side of the checking station from the bagging station, with the result that the flow of traffic through each station as a whole may be materially increased without the necessity of resorting to additional cash registers and men handling money and at the same time, the possibility of physical injury to men leaning over the benches at the checking stations to lift customers' baskets from their carriages is eliminated.

An object of the present invention is to provide a checking stand for self service stores, provided with an unloading station, a checking station and a bagging station.

Another object of the invention is to provide a checking stand of the character described having mobile means for moving merchandise from an unloading station to a checking station.

A still further object of the invention is to provide a checking stand of the character described having a buggy for moving merchandise from an unloading station to a checking station and means for supporting the buggy in inoperative position adjacent the checking station.

A still further object of the invention is to provide a checking stand of the character described having a bench with a detachable extension comprising an unloading station.

A still further object of the invention is to provide a checking stand of the character described provided with means for automatically returning the merchandise moving means to the unloading station.

A still further object of the invention is to provide a checking stand of the character described with a support adjacent the unloading station for receiving merchandise containers prior to the unloading thereof.

A still further object of the invention is to provide a checking stand of the character described comprising a bench having antifriction means on the top thereof, and a carrier supported by said anti-friction means for movement thereover.

These and other objects will be apparent from the following specification when taken with the accompanying drawings in which:

Fig. 1 is a plan view of a portion of a self-service store illustrating the present invention,

Fig. 2 is a perspective view of one of the checking stands, according to the present invention,

Fig. 3 is an enlarged view of a detail of the construction disclosed in Fig. 2,

Fig. 4 is a perspective view of a connector employed in the construction of Fig. 2,

Fig. 5 is a cross-sectional view of a portion of the construction disclosed in Fig. 2 taken in the direction of the arrows V—V of Fig. 2,

Fig. 6 is a perspective view of another form of the invention,

Fig. 7 is a perspective view of still another form of the invention,

Fig. 8 is a cross-sectional view disclosing the

form of the invention disclosed in Fig. 7 together with a buggy resting on the top of the rollers thereof,

Fig. 9 is a perspective view of another form of the invention similar to that disclosed in Fig. 7,

Fig. 10 is a partial sectional perspective view of another form of the invention,

Fig. 11 is a vertical section taken transversely across the bench of the construction disclosed in Fig. 10 showing details thereof, and

Fig. 12 is a perspective view of still another form of the invention.

Referring particularly to Fig. 1 of the drawings in which is shown a plan view of a portion of a store illustrating the present invention, the reference character 1 indicates the store frame having an inlet door 2 and an outlet door 3. A partition or fence 4 is provided to divide incoming and outgoing traffic. Customers entering the store obtain a wheeled carriage supporting two or more baskets, not shown, either just before or just after they pass through a turnstile 5. After passing the turnstile 5, customers go into the rear portion 6 of the store, most of which is not shown in the drawing, where are located shelves and bins (not shown) from which they select the merchandise they desire to purchase.

Before leaving the store, customers must pass through one of the passageways 7. The passageways 7 are each defined on one side by a fence 8 and on the other side by a bench 9. Behind each bench 9 from its passageway 7 is an unloading station 11, a checking station 12 and a bagging station 13. Adjacent the checking station 12 is a cash register 14. The system described thus far is similar to systems now in use, with the exception that the present systems are not provided with the unloading station 11 nor with the portion of the bench 9 in front of the unloading station 11.

In Fig. 2 is shown, more in detail, one of the checking stands, disclosed in Fig. 1. The bench 9 consists of a main body portion 20, adjacent one end of which is provided a supplementary bench 21 on which is disposed a cash register 22. To the end of the main body portion 20, adjacent the cash register 22 is detachably connected a leaf extension 23 by one or more connectors 24 of the character disclosed in Figs. 3 and 4. Each connector 24 consists of a plate 25 provided with an off-set portion 26, connected to the main bench portion 20. The leaf extension 23 has connected to it a plate 27 to which is connected a tongue 28 which is disposed between the main bench portion 20 and the off-set portion 26 of the plate 25. At the opposite end of the leaf extension 23 from the connector 24 is connected a support 29, the connection preferably consisting of hinges 30, so that when the leaf extension 23 is separated from the main bench portion 20, the support 29 and the leaf extension 23 may be folded together to facilitate storage.

Secured to the top of the leaf extension 23 and resting on the main bench portion 20 is a guiding structure 31, preferably in the form of angle bars. On the top of the main bench portion 20 adjacent the ends of the guiding member 31, which terminates substantially midway between the ends of the main bench portion 20, is a ramp 32.

The purpose of the ramp 32 and the guiding members 31 is to confine the movement of a buggy 33, shown on the floor adjacent the bench 9 in Fig. 2. The buggy 33 is provided with wheels 34 and is adapted to move longitudinally on the top of the bench portion 20 and the leaf extension 23. Movement toward one end of the bench 9 is limited by the ramp 32 and toward the other end of the bench is limited by the end guiding member 31. As shown, the buggy 33 is provided with side walls 35, except on the end thereof toward the ramp 32. The height of the buggy 33 and the ramp 32 should be such that the upper end of the ramp 32 is level with the floor portion of the buggy 33.

It is preferred that the guiding members 31 be hinged at some point such as at the junction between the main bench portion 20 and the leaf extension 23, as shown particularly in Fig. 3. Connecting hinges 36 are provided and are so arranged that the portions of the guiding members 31 on the top of the main bench portion 20 may be folded back over the portions of the guiding member 31 on the leaf extension 23 for facilitating storage of the extension leaf 23 and its associated parts when disconnected from the main bench portion 20.

Adjacent the support 29 for the leaf extension 23 is provided a bench 40 on which may be supported baskets 41 in which customers have collected the merchandise they desire to purchase. The bench 40 may be connected to the support 29 or not as desired.

In operating the checking stand of the character disclosed in Fig. 2, a customer either carries his basket 41 or wheels his carriage supporting his basket 41 to the bench 40 which is adjacent the entrance of the passageway 7, as shown in Fig. 1. The clerk at the station 11, known as the unloader, places the basket 41 on the bench 40, takes merchandise from the basket 41 and deposits it on the buggy 33 positioned on the leaf extension 23. As is usual, the merchandise is unloaded into several groups, according to classification of merchandise, such as, produce, staples, and meats. When all the merchandise of one customer has been placed on the buggy 33, the buggy 33 is moved between the side guiding members 31 to the section of the main bench portion 20 at the checking station 12. A clerk standing at the checking station 12, known as the checker, tabulates the prices of the items carried by the buggy 33, on the cash register 22, presents the bill to the customer and receives payment. It will be understood that merchandise unloaded onto the buggy in separate classifications may be tabulated in separate totals of selling prices for the different groups of merchandise in order to check the sales of the store by departments. As the checker tabulates the price of each item, he slides each item tabulated from the buggy 33 onto the main bench portion 20 at the bagging station 13. The clerk at the bagging station 13, known as the bagger, then bags the items as they are moved to his station. By the time that the checker has presented the bill and received payment for the merchandise purchased by the customer, the bagger has placed all of the merchandise in bags to be carried out of the store by the customer.

In order to facilitate the returning of the buggies 33 by the checker to the unloader, there is provided, as shown particularly in Figs. 2 and 5, a support for holding buggies 33 out of position after they have been finished with by the checker and while another buggy 33 carrying merchandise of another customer is being moved by the unloader from the unloading station 11 to

the checking station 12. The support consists of a standard 42, secured to the supplementary bench 21 and provided at the top with a spring clip 43. At the foot of the standard 42 is provided a ramp 44, preferably connected to one of the guiding members 31 and descending from the guiding member 31 with which it is associated toward the foot of the standard 42. Each buggy 33 is provided with a skid 45. As shown particularly in Fig. 2 the standard 42 should be disposed adjacent the cash register 22. When the checker has removed the merchandise from a buggy 33 to in front of the bagger, the checker lifts the buggy 33 so as to rotate the outer edge thereof past the spring clip 43. As the buggy 33 rotates upwardly, the skid 45 slides down the ramp 44. Thus when the buggy 33 is in the position as shown in dotted outline in Fig. 5, the spring clip 43 and the ramp 44 maintain the buggy 33 in an upright position on one edge. The unloader may then move a second buggy from the unloading station 11 to the checking station 12 and slide the first buggy along the ramp 44 to the unloading station 11 where it is removed from its upright position into a position on the leaf extension 23 in front of the unloading station 11.

From the foregoing description, it will be clear that the conventional type of checking stand consisting of the main bench portion 20, supplementary bench 21, together with the cash register 22, and only the checking and bagging stations, may be readily converted into a checking stand according to the present invention by providing the leaf extension 23 together with its support 29, the guiding members 31, the buggy 33, and bench 46. However, it will be appreciated that under some circumstances, the bench 46 might be dispensed with and the merchandise unloaded from the baskets 41 while directly supported on the wheeled carriage, not shown.

As an additional refinement, the leaf extension 23 may be provided with a box 48 disposed on the outer edge thereof for the purpose of displaying some item of merchandise as a "Special". With such an item of merchandise prominently displayed at the unloading station, the unloader will have an opportunity to urge the sale of this item to customers waiting their turn to move to the checking station.

A simplified form of the checking stand disclosed in Fig. 2 is disclosed in Fig. 6 wherein the main bench portion 47 is provided with an extension leaf 48. The extension leaf 48 is preferably detachably secured to the main bench portion 47 as by connectors 24, disclosed in Fig. 4, and is supported by a prop 49 of conventional character. The buggy or carrier 50 for sliding along the top of the extension leaf 48 and the main counter portion 47 is disclosed in the form of a tray 50 without wheels. In its simplest form, the carrier 50 could be in the form of a flat board-like member.

Another form of the invention is disclosed in Fig. 7 wherein there is provided a main bench portion 51, having a leaf extension 52, preferably detachably secured to the main counter portion 51 and provided with a hinged support 53, adjacent which is disposed a bench 54, similar to the bench 46, disclosed in Fig. 2. Disposed on the top of the main counter portion 51 and the leaf extension 52 is a roller anti-friction member 54, which preferably is secured to the leaf extension 52 and rests on the top of the main counter portion 51. The member 54 consists of side members 55, shown more clearly in Fig. 8, between which there is supported a pin 56 carrying through bearings 57, rollers 58. The side members 55 have depending portions overlapping the sides of the leaf extension 52 and the main bench portion 51, as shown particularly in Fig. 8 to prevent lateral displacement. Also the side members 55 are provided with hinges 59 so that the left portion of the member 54 may be rotated about the hinges 59 to dispose it on the top of the right portion for facilitating storage when removed from the main bench portion 51 together with the leaf extension 52. Adjacent the end portion of the member 54 on the main bench portion 51 is a ramp 65, similar to the ramp 32, disclosed in Fig. 2 and for the same purpose.

To the left of the ramp 65, as viewed in Fig. 7, and in the top of the main bench portion 51, is a slot 66, communicating with a ramp 67 within the main bench portion 51 and projecting outwardly into the space beneath the leaf extension 52. The purpose of the slot 66 which extends across the main bench portion 51 is to receive a carrier, not shown, which is adapted to move over the rollers 58 from the unloading station 11 to the checking station 12 after merchandise has been removed therefrom by the checker to the bagging station 13. When the carrier is placed in the slot 66, it slides down the ramp 67 to position at the unloading station 11 where it may be withdrawn by the unloader and reused by him.

A form of the buggy particularly adapted for use with the antifriction member 54 disclosed in Fig. 7, is disclosed in Fig. 8 and consists of a tray 68, resting on the rollers 58 and having depending side flanges 69 and 70, engaging with the outside faces of the members 55 to guide the tray 68 against lateral displacement. It will be observed that the depending flange 69 is longer than the flange 70. The flange 69 is on the customer's side of the checking stand and is arranged to depend sufficiently far to cover the ends of the pins 56. The flange 70, however, is on the clerk's side of the checking unit and therefore need not depend any farther than is sufficient to prevent lateral displacement.

Still another form of the invention is disclosed in Fig. 9. This form of the invention is somewhat similar to the form disclosed in Fig. 7 with the exception that the main bench portion 71 and the leaf extension portion 72 are permanently secured together and are provided as shown with built-in rollers 73. The rollers 73 are for the purpose of carrying a buggy or a carrier, preferably similar to the type disclosed in Fig. 6. A bench top ramp 74 and built-in ramp 75 are similar to the corresponding parts shown in Fig. 7.

Still another form of the invention is disclosed in Figs. 10 and 11, wherein the buggy or tray type of moving means for merchandise is displaced by a conveyor belt for providing means for conveying merchandise from the unloading station to the checking station. As shown in Fig. 10, the checking stand consists of a bench 76, having conveyor belt rollers mounted thereon by suitable brackets not shown, one roller 77 being mounted between the checking and bagging stations 12 and 13 and the other roller 78 at the outer end of the unloading station 11. The top 76' of the bench 76 opposite the unloading station 11 and checking station 12 is below the level of the top 76'' of the bench 76 opposite the bagging station 13. As shown particularly in Fig. 11, there is supported directly over the surface of the

bench top 76' a platform 79, supported by bars 80, overlapping the sides of the bench 76 and secured thereto. An endless belt 81 is disposed over the rollers 77 and 78, the portion thereof traveling in one direction sliding on the top of the platform 79 and the portion going in the other direction being beneath the platform 79 but sliding across the top of the bench 76. The edges of the belt 81 are covered by a border band 82 comprising an integral portion of the bars 80.

The roller 78 is provided with a shielding housing 83, supported from the end of the bench 76. A cover plate 83' is connected to the bench top 76'' over the roller 77. The inner edges of the housing 83 and plate 83' are similar in form to the border bands 82 and complete with the bands 82 a frame for the exposed portion of the endless belt 81. Suitable cover plates 84, secured to the bench 76, cover the ends of the housing 83 and the roller 78.

It will be understood that in the use of a checking stand of the character disclosed in Figs. 10 and 11, merchandise will be unloaded at the unloading station 11, (not shown as such in Fig. 10) on the belt 81, and moved by the belt to the checking station 12 (not shown as such in Fig. 10). The belt is moved around the rollers in a counter-clockwise direction as shown in Fig. 10 by means of a crank 85 connected to the roller 78 for rotating the same. However, in place of moving the belt 81 by means of the crank 85, other mechanical or electrical apparatus may be provided. If desired, such apparatus may be arranged to automatically move the belt 81 a predetermined distance upon the actuating of a control mechanism. Such an arrangement would permit the automatic moving of merchandise on the belt 81 from the unloading station 11 to the checking station 12.

Another and simplified form that the invention might take is disclosed particularly in Fig. 12. In this form, the wheeled carriage 90, having shelves 91 and 92 for supporting the merchandise baskets 93, in which customers collect the merchandise they desire to purchase, is provided with a bracket 94, having a portion extending across the carriage at the level of the handle 95. In using this form of the invention, when the customer brings the wheeled carriage 90 to adjacent the checking stand, a tray or carrier 96 is disposed on the top of the wheeled carriage 90 resting on the bracket 94 and the handle 95. To the underside of the tray 96 is secured a member 97 for engaging on the inside of the bracket 94 and of the handle 95 to prevent relative longitudinal movement between the tray 96 and the wheeled carriage 90. At the checking stand, the bench for the use by the unloader, the checker and the bagger may be extremely narrow or even entirely eliminated. When the customer reaches the unloading station, the unloader unloads the merchandise from the basket 93 onto the tray 96, which he has placed on the carriage 90 and then passes the carriage to the checker, who checks the merchandise, presents a bill for the same to the customer, and receives payment. As in the other forms of the invention, at the same time as the checker is presenting his bill and receiving payment, the bagger is placing the merchandise moved from the tray 96 into bags for taking out of the store by the customer. The bagger may then remove the tray 96, placing it in a convenient position for re-use by the unloader and quickly push the carriage 90 to a location where it may be taken by an incoming customer for re-use.

In using the form of the invention disclosed in Fig. 12, instead of unloading the merchandise directly from the baskets 93, while disposed on their shelves 91 and 92 of the carriage 90, the baskets 93 may be first placed on a bench similar to the bench 40 disclosed in Fig. 2 and then unloaded from this position onto the board 96.

In considering the checking stands disclosed herein, it is to be understood that the proportions of the various parts thereof may be selected for the requirements of the stores in which they are used. However, it has been found to be satisfactory to make the portion of the bench in front of the unloading station about equal in length to one-half of the main bench portion, that is, the bench in front of the combined checking and bagging stations. Referring to the spring clip 43, disclosed particularly in Figs. 2 and 5, it has been found while a spring clip type of latch is particularly satisfactory and simplified in form, that other types of latches for retaining the upper edge of the carrier may be employed. Also it is contemplated that while all of the carriers disclosed are movable on the top of the benches, the benches could be suitably recessed to receive the carriers to support them substantially flush with the bench tops.

The foregoing description of the forms of the invention are illustrative of the broad invention, and accordingly I do not wish to be limited except by the scope of the following claims.

I claim:

1. In a store or the like wherein articles of merchandise of different classifications are selected by customers and loaded by customers into carrying devices, a counter, movable merchandise conveying means on said counter, said counter having a checking station at which a checking clerk is positioned to check the articles of merchandise, an unloading station at one side of said checking station at which an unloading and classifying clerk unloads articles of merchandise from the carrying devices into association with said conveying means to be conveyed thereby, said merchandise being separable, when in said association, into various classifications so that they may be checked according to their respective classifications, whereby merchandise may be conveyed by said conveying means from said unloading station to said checking station, and a bagging station at the other side of said checking station at which a bagging clerk is positioned to bag merchandise after it has been checked by the checking clerk, said checking and bagging stations being clear to permit the passage of merchandise thereover from the checking station to the bagging station as it is checked.

2. In a store or the like wherein articles of merchandise of different classifications are selected by customers and loaded by customers into carrying devices, a counter, mobile means on said counter, said counter having a checking station at which a checking clerk is positioned to check the articles of merchandise, an unloading station at one side of said checking station at which an unloading and classifying clerk unloads articles of merchandise from the carrying devices on to said mobile means, said merchandise being separable when on said mobile means into various classifications so that they may be checked according to their respective classifications, whereby merchandise may be conveyed by said mobile means from said unloading station to said check-

ing station, and a bagging station at the other side of said checking station at which a bagging clerk is positioned to bag merchandise after it has been checked by the checking clerk, said checking and bagging stations being clear to permit the passage of merchandise thereover from the checking station to the bagging station as it is checked.

3. The invention as defined in claim 2, wherein the mobile means to convey the merchandise from said unloading station to said checking station, comprises an endless conveyor belt running from the unloading station to the checking station, and means to index the conveyor belt to move the portion thereof at the unloading station to the checking station.

4. The invention as defined in claim 1 wherein the movable merchandise conveying means comprises a buggy.

5. The invention as defined in claim 1 wherein the movable merchandise conveying means comprises a plurality of antifriction rollers at the unloading and checking stations, and a carrier movable on said rollers.

6. The invention as defined in claim 1 wherein there is provided means at one side of the path of movement of said conveying means for receiving and retaining said conveying means when moved from operative relation with said station.

7. The invention as defined in claim 1 wherein the checking station and unloading station have a slot therebetween, and there is provided a ramp associated with said slot, whereby the conveying means may be inserted in said slot and returned by said ramp to the unloading station.

8. The invention as defined in claim 1 wherein the movable merchandise conveying means is in the form of a carrier oscillatable about one edge of itself, and there is provided means at one side of the path of movement of the carrier for receiving and retaining said carrier when the same is oscillated about one edge thereof into an upwardly extending position.

HERBERT N. BRADLEY.

[fol. 358] Plaintiffs' Exhibit 14

Photograph showing Checking Counter at A. & P. Super Market, West Mich. Avenue, Jackson, Mich. (Photograph taken March 27, 1947.)

(Here follows 1 photolithograph, side folio 359)

Plaintiffs' Exhibit 14.

[fol. 360] Plaintiffs' Exhibit 15

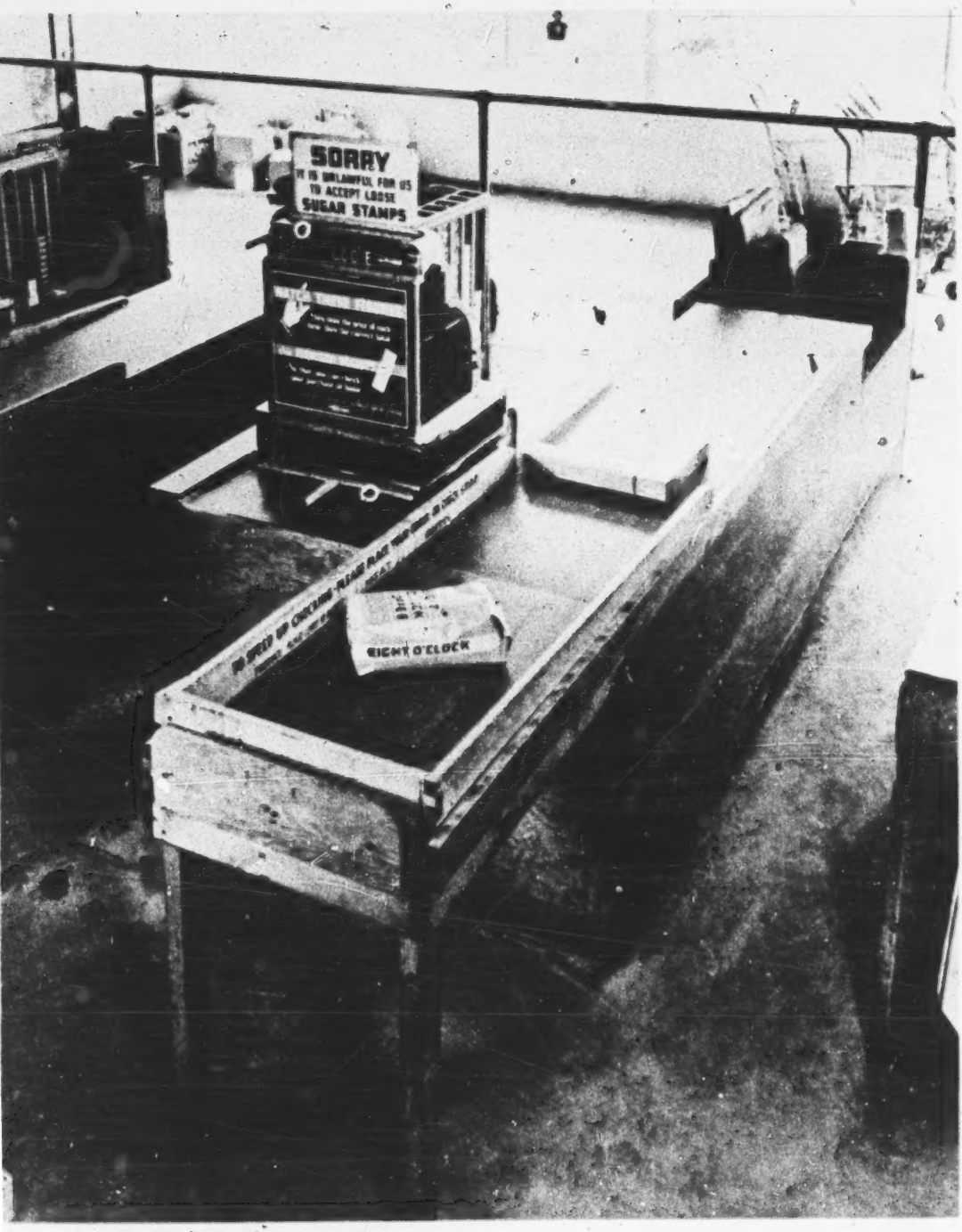
Photograph showing Checking Counter at A. & P. Super Market, West Mich. Avenue, Jackson, Mich. (Photograph taken March 27, 1947.)

Plaintiffs' Exhibit 16

Wooden model of Turnham Checkout Counter.

(Physical.)

(Here follows 1 photolithograph, side folio 361)


SORRY
SUGAR STAMPS
EIGHT O'CLOCK

[fol. 362] Plaintiffs' Exhibit 17

License Agreement

This agreement entered into this 7th day of February, 1947, by and between Joe Weingarten, of Houston, County of Harris, and State of Texas, hereinafter referred to as Licensor and George T. Smiths Market Baskets, Inc., of Lansing, Ingham County, Michigan hereinafter referred to as Licensee.

Witnesseth:

Whereas, Licensor represents himself to be the assignee and sole owner of the entire right, title and interest in and to United States letters patent No. 2,242,408, issued to Turnham, and by virtue of an exclusive agreement with Evelyn B. Bradley, owner of the Bradley patent No. 2,317,438, has a license carrying the right to grant sublicenses under United States letters patent No. 2,317,438, and

Whereas, Licensee is desirous of securing a nonexclusive license under the aforesaid patents with the right to manufacture, or have manufactured, for its own use and installation, counter devices embodying the inventions disclosed and claimed in the aforesaid letters patent, throughout the United States, its territories and possessions, and Licensor is willing to grant such a license under the terms and conditions hereinafter set forth:

Now, therefore, in consideration of the sum of one dollar, each in hand to the other paid, and other good and valuable considerations, the receipt of which is hereby acknowledged, it has been agreed as follows:

1. Licensor grants a nonexclusive license to Licensee under United States letters patent No. 2,242,408 and No. 2,317,438 with the right to manufacture, or have manufactured, for its own use and installation and to use counter devices coming within the scope of said letters patent, [fol. 363] or any reissue, divisions or extensions thereof, throughout the United States, its territories and possessions.

2. In consideration of the license granted in the preceding section, Licensee agrees to pay to Licensor annually royalties according to the following schedule:

Class I

1 to 5 counters, $50.00 the first year, $25.00 per year thereafter.

Class II

5 to 10 counters, $75.00 the first year, $50.00 per year thereafter.

Class III

10 to 25 counters, $150.00 the first year, $100.00 per year thereafter.

Class IV

25 to 50 counters, $250.00 the first year, $200.00 per year thereafter.

Class V

50 to 100 counters, $400.00 the first year, $300.00 per year thereafter.

Class VI

100 to 300 counters, $1000.00 the first year, $750.00 per year thereafter.

Class VII

300 to 500 counters, $1500.00 the first year, $1000.00 per year thereafter.

Class VIII

500 to 750 counters, $2000.00 the first year, $1500.00 per year thereafter.

[fol. 364] Class IX

750 to 1000 counters, $2500.00 the first year, $2000.00 per year thereafter.

Class X

1000 to 1500 counters, $2750.00 the first year, $2500.00 per year thereafter.

Class XI

1500 to 2000 counters, $3000.00 the first year, $2750.00 per year thereafter.

Class XII

2000 to 3000 counters, $3250.00 the first year, $3000.00 per year thereafter.

Class XIII

3000 counters and over $3500.00 the first year or $1.00 per unit, whichever is the greater amount, with a royalty of $1.00 per unit per year thereafter.

3. The payment of royalties provided for in section 2 of this license agreement shall be made in quarterly installments covering all counter devices in use during any part of the preceding quarter, such royalty payments to be made on or before the 30th day of April, the 30th day of July, the 30th day of October and the 30th day of January.

4. Licensee agrees to keep full, accurate and complete records and books of accounting showing the number of installations of counter devices coming within the terms of the herein granted license, such records to show the location of the installation, the number of counter devices in each installation, and the date of installation, said records to be available for inspection by Licensor or his [fol. 365] authorized agents with full right to examine such records at any time during reasonable business hours.

5. In the event Licensor should grant a more favorable license or licenses under the aforesaid patents for counter devices coming within the scope of this license agreement, the terms to the herein provided license shall be changed accordingly.

6. Licensee shall have the right to cancel the herein granted license at any time upon ninety (90) days written notice, and be relieved of all obligations thereunder except the obligation to pay royalties which have accrued up to the time of cancellation.

7. Licensor shall have the right to cancel the herein granted license in event of a breach by Licensee of any

of the provisions herein provided, following written notice served on Licensee by Licensor, and in the event such breach is not cured within ninety (90) days following the date of notice.

8. Licensor agrees to act with reasonable diligence to protect Licensee against infringers of said letters patent, by taking such steps as the Licensor may deem necessary.

9. Licensor hereby waives all claims of infringements on the part of Licensee of the aforesaid patents prior to October 1, 1946 and in consideration of this waiver, Licensee agrees, within thirty (30) days after the execution of this agreement, to account to Licensor for royalties earned from October 1, 1946, to the date of execution of this license agreement, in accordance with the royalty schedule set forth in section 2 of this agreement.

10. The Licensor hereby agrees to refund to the Licensee all collected royalty payments made under this agreement, in the event that any of the claims of said patents under which this license is granted are finally declared to be invalid by an appellate court in the action now pending in the District Court of the United States for the Eastern District of Michigan, Southern Division, [fols. 366-367] entitled Herbert N. Bradley and Joe Weingarten vs. The Great Atlantic and Pacific Tea Company, Civil Docket No. 5430, and to waive all future royalties except in such Federal Judicial Circuits in which the invention is being used and in which the validity of the patents, or either of them, is sustained, in which event the royalties will be earned and paid in accordance with paragraph 2 and 3 of this agreement.

11. All notices herein provided shall be by registered mail addressed to the last known address of the parties hereto, such addresses being as follows until otherwise changed by proper notice:

Mr. Joe Weingarten, c/o J. Weingarten, Inc., Houston, Texas.

Geo. T. Smith's Market Basket, 428-30-32 North Washington Avenue, Lansing, Michigan.

12. The terms and conditions of this agreement shall be equally binding on the heirs, successors and assigns of the parties of this agrement.

In witness whereof, the parties hereto have affixed their names and seals the day and year first above written.

Joe Weingarten. Attest: —— ——. George T. Smiths Market Basket, Inc. (Illegible) for Thomas I. Smith, Sec. Attest: Ruth A. Cook.

[fol. 368] Plaintiff's Exhibit 18

U. S. Patent in suit, No. 2,242,408

Plaintiffs' Exhibit 18.

U.S. DIST. COURT, E. D. MICH.
Pltf. Ex. 18
Deft. Ex.
REPORTER

No. 2242408

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Whereas ELLIS D. TUNHAM, of Houston, Texas, assignor to JOE WEINGARTEN, of Houston, Texas,

PRESENTED TO THE Commissioner of Patents A PETITION PRAYING FOR THE GRANT OF LETTERS PATENT FOR AN ALLEGED NEW AND USEFUL IMPROVEMENT IN

MERCHANDISE HANDLERS,

A DESCRIPTION OF WHICH INVENTION IS CONTAINED IN THE SPECIFICATION OF WHICH A COPY IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND COMPLIED WITH THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED, AND

Whereas UPON DUE EXAMINATION MADE THE SAID CLAIMANT is ADJUDGED TO BE JUSTLY ENTITLED TO A PATENT UNDER THE LAW.

NOW THEREFORE THESE Letters Patent ARE TO GRANT UNTO THE SAID

Joe Weingarten, his heirs OR ASSIGNS

FOR THE TERM OF SEVENTEEN YEARS FROM THE DATE OF THIS GRANT

THE EXCLUSIVE RIGHT TO MAKE, USE AND VEND THE SAID INVENTION THROUGHOUT THE UNITED STATES AND THE TERRITORIES THEREOF.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington this twentieth day of May, in the year of our Lord one thousand nine hundred and forty-one, and of the Independence of the United States of America the one hundred and sixty-fifth.

Attest:

J. W. Miller
Law Examiner.

Commissioner of Patents

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Plaintiffs' Exhibit 18

May 20, 1941. E. D. TURNHAM 2,242,408

MERCHANDISE HANDLER

Filed Oct. 28, 1938

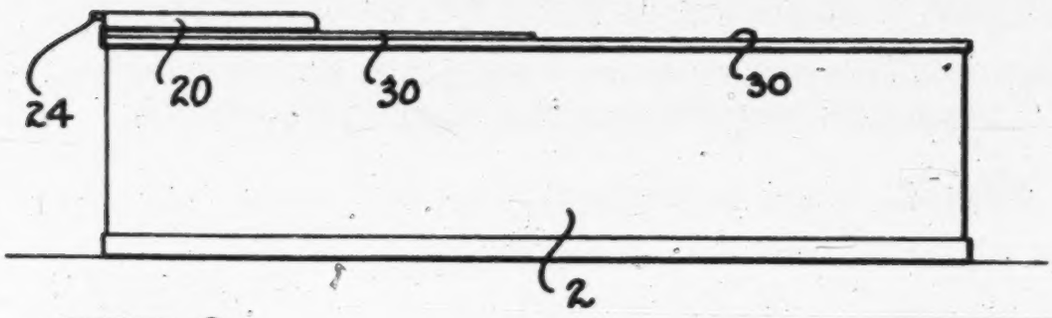

Fig. 2.

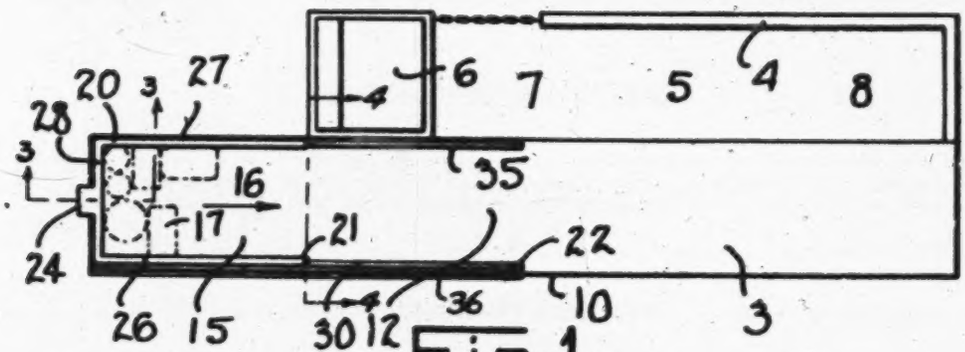

Fig. 1.

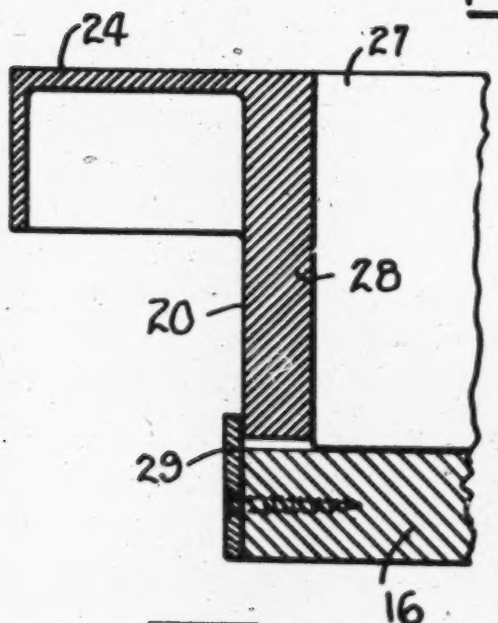

Fig. 3.

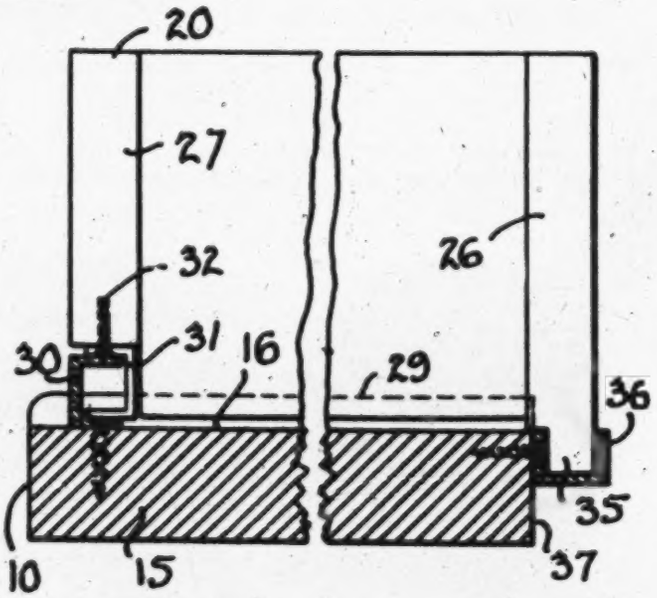

Fig. 4.

Inventor
E.D. TURNHAM.
Jesse R. Stone
Lester B Clark

By

Attorneys.

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Plaintiffs' Exhibit 18

Patented May 20, 1941

2,242,408

UNITED STATES PATENT OFFICE

2,242,408

MERCHANDISE HANDLER

Ellis D. Turnham, Houston, Tex., assignor to Joe Weingarten, Houston, Tex.

Application October 28, 1938, Serial No. 237,396

6 Claims. (Cl. 186—1)

The invention relates to a device for assisting in the handling of merchandise at the checker or cashier's station or stand in grocery stores and the like.

In cash and carry stores it is the practice for the customer to gather up the goods or articles which have been selected and to approach the cashier's stand usually carrying the articles in a basket. It is necessary for the customer to stand in line and eventually his heavy basket of articles is deposited on the counter in front of the checker. It is then necessary for the checker to pick out the articles from the basket to record them individually on the register and sort them as they are picked out of the basket in order to group together the various articles. Many times where two or three cans or objects of the same type of article are sold for a lump sum, such as three cans for twenty-five cents, the checker must hunt through the entire basket of goods to pick out these several similar cans or articles. As a consequence thereof considerable delay is encountered at the checker's stand due to the fact that the checker must perform all of these operations while recording the price of the goods on the register. The result has been that in larger stores a great number of checkers have been required and each checker must be provided with a register. Registers of this type cost several hundred dollars and as a result the store owner has been put to considerable investment in registers and considerable expense in maintaining an excessive number of checkers in order to prevent delay and dissatisfaction on the part of the customers.

It is one of the objects of the present invention to simplify and reduce the acts which must be performed by the checker and sort the articles and arrange them in a manner whereby they can be conveniently checked.

Another object of the invention is to provide a frame work for a checker counter whereby the goods of each customer can be grouped together and moved to a position convenient to the checker to be recorded.

Another object of the invention is to provide a pusher stand for checker counters in grocery stores.

Another object of the invention is to sort the articles of a customer and arrange them together so that the customer may observe the absence of some items and may at the same time estimate the total cost thereof so as to save the time of the checker when the purchases are being recorded.

Another object of the invention is to provide a checker stand so that it will accommodate a pusher, a checker and a sacker each of whom may perform specific acts in order to facilitate the registering and disposing of a customer in an efficient manner.

Still another object of the invention is to provide a frame whereby the goods of a customer may be grouped together and moved along the counter as a unit.

Other and further objects of the invention will be readily apparent when the following description is considered in connection with the accompanying drawing:

Fig. 1 is a top plan view looking down upon a counter which has been equipped with the invention.

Fig. 2 is a side elevation of the counter of Fig. 1.

Figs. 3 and 4 are sections taken on the lines 3—3 and 4—4 respectively of Fig. 1.

In Fig. 2 the cashier or checker's counter is indicated generally at 2 and as seen in Fig. 1 is an elongated counter having a top 3 thereon. It is usual that a guard rail or fence 4 be positioned adjacent the rear of the counter so as to provide a space 5 as seen in Fig. 1. The cash register or recording register 6 is usually positioned as seen in Fig. 1 closely adjacent the location where the checker will stand. This location is indicated at 7. While at the opposite end of the area 5 as at 8 will be the position of the person who picks up the articles and places them in sacks or bags to be handed to the customer. The customer passes along the front edge 10 of the counter. The construction thus far described is that usually employed in checker stands or counters of this type and as previously noted the customer at the present time approaches the area 12 and places his basket in position on top of the counter, whereupon the checker removes the goods from the basket and records them on the register 6. A sacker picks up the articles and places them in the sack. This arrangement, however, has been found unsatisfactory for it is necessary for the customers to line up to the left of the position 12, each customer carrying a heavy basket of goods.

The present invention contemplates the provision of an extension on the counter such as seen at 15 in Fig. 1. This extension may be of the same width as the top 3 of the counter 2 and may be of any desired length. This extension 15 is provided with top 16 upon which the various articles 17 are deposited either by the customer or by what will be known hereinafter as the

pusher boy. In many of the stores small wagons or carriages are provided upon which one or two baskets may be deposited and these carriages are wheeled around by the customer while he is selecting the various articles which he desires to purchase. In any event the customer approaches the cashier's extension or stand 15 with the basket and the pusher boy quickly removes the articles 17 from the basket and deposits them on the top 16. A particular advantage of this arrangement is that in the majority of instances each of the articles 17 has a price marked thereon and the pusher boy in depositing them on the counter will arrange the goods with the prices uppermost or exposed so that they can be conveniently observed by the checker. Another function of the pusher boy is to sort the goods and where several articles are being sold for a lump price these several articles can be grouped together so that the checker may observe that this group of articles have been purchased for the lump sum price.

When the pusher boy has deposited the articles as seen in Fig. 1 in position on the counter, they are then ready to be moved along the top of the counter to the cashier's stand as at 12. To accomplish the movement of all the articles 17 as a unit the framework 20 has been slidably positioned on the top 16 of the extension 15 and this framework is arranged to be moved to the right as viewed in Fig. 1 so that the ends 21 thereof can move forwardly such as at 22. This frame 20 has a handle 24 thereon which may be grasped by the pusher boy in order to move it or the frame may be grasped directly.

As seen in Fig. 1 the framework is several inches in height and is of a U-shape having a front side bar 26 and a rear side bar 27 which are joined by the end bar 28. In this manner the group of articles 17 are enclosed by the framework and as the frame is pushed along the top of the counter, the group of goods are compelled to slide with the framework so that they are advanced to a position convenient to the checker.

In Figs. 3 and 4 the bar construction of the framework has been illustrated wherein the side bars are slidable on the top of the counter 16 and if desired a stop plate 29 may be affixed to the end of the counter so that the end bar 28 will abut against it to prevent the frame from moving off from the end of the counter. This construction is seen in Fig. 3.

Fig. 4 shows the arrangement of the side bars 27 and 26 in order to anchor the frame on the top of the counter 16. This arrangement includes a channel member 30 which is anchored to the top 16 of the counter and fits an interfitting channel member 31 therein which is fixed to the side bar 27 by bolts or screws 32. In this manner the framework 20 cannot be elevated beyond the height of the channel 30 because of the arrangement of the interfitting legs of the channels 30 and 31. Thus the frame cannot be inadvertently pushed out of position. In order to guide the frame in its sliding movement the side bar 26 has a base 35 thereon which fits in a channel 36 fixed on the rear edge 37 of the top 16. This base or edge 35 guides the frame in its sliding movement as it travels along the channel 36. It will be noted that the channel 30 is disposed inwardly a short distance from the edge 16 of the counter as seen in Figs. 1 and 4 so that its sliding movement will not strike a customer who might be leaning against the edge of the counter.

In operation the pusher boy takes the goods from the customer, deposits them on the counter 16 within the frame 20, sorting the goods and arranging them in a manner so that they can be conveniently checked by the cashier. When the cashier has disposed of the previous customer, the pusher boy then moves the framework 20 to the right as viewed in Fig. 1 so as to push all of the customer's articles up to the cashier as a unit or in a group together. The frame is then withdrawn and the pusher boy proceeds to deposit the next customer's goods within the frame. The checker meanwhile can record on the register 6 the prices of all of the goods and the sacker then picks up the goods as they are recorded and places them in bags or sacks for the customer. The customer is satisfied because he has been immediately relieved of the articles which he has selected, goods have been placed conveniently before him so that he may observe any errors and roughly estimate the general cost. The prices are all displayed conveniently for him and he does not feel uneasy due to the fact that the goods are not properly grouped or that someone else's articles have been included with those of his own selection.

In actual practice the provision of this arrangement has substantially reduced the time per customer for checking the goods purchased and has resulted in a substantial reduction in the number of registers required and the number of checkers which are necessary to take care of a given number of customers.

What is claimed is:

1. The combination with a cashier's counter of an extension thereon, a top on said extension to receive merchanise, and an open bottom enclosure movable relatively to the extension and counter to slide the merchandise along the said top and extension to a position on said counter.

2. A cashier's counter in a cash and carry type of grocery, a cashier station, a portion on the counter to receive the merchandise being purchased, and means slidable on the surface of the counter to enclose and move such merchandise to the cashier station.

3. In a cash and carry type of cashier's counter, a register on the counter, a cashier station, a portion on the counter to receive the merchandise being purchased, and means to enclose such merchandise on the surface of the counter and to move with such merchandise to the cashier station, so that all the articles of merchandise of a customer will be positioned together.

4. A checker's stand including a counter of the character described, an open bottom pusher frame thereon, means to guide said frame in sliding movement so that goods placed on the end of said counter within said frame may be pushed along the counter in a group to a position adjacent the checker by movement of said frame.

5. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless three sided frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier.

6. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the

cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier, said frame being open at the end adjacent the cashier's stand and readily movable to be returned over said portion so as to receive the merchandise of another customer while the cashier is occupied with the previous group.

ELLIS D. TURNHAM.

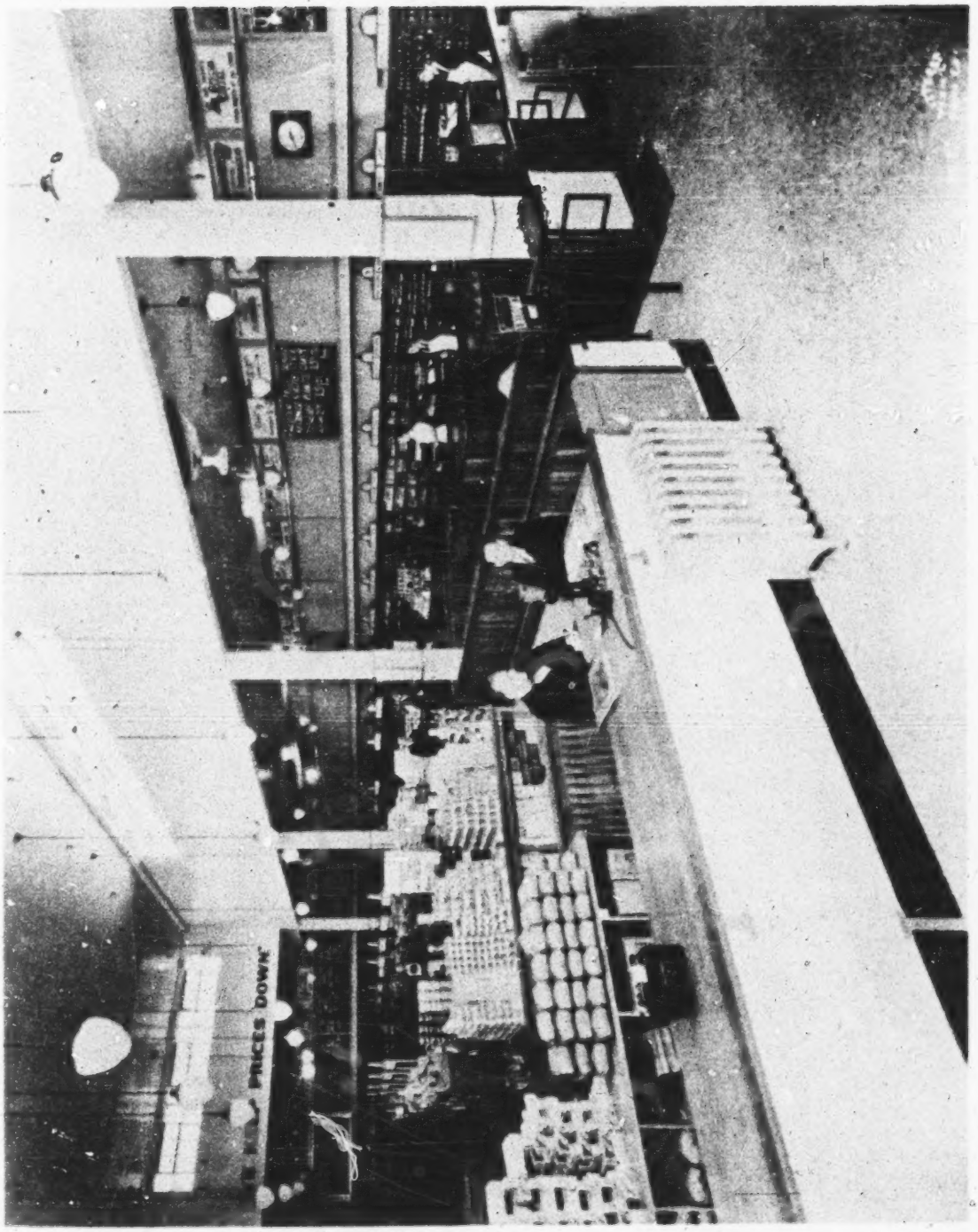
[fol. 374] Plaintiffs' Exhibit 19

Photograph

(Here follows 1 Photolithograph, side folio 375)

Plaintiffs' Exhibit 19.

324A



[fol. 376] Plaintiffs' Exhibit 20

Pages 78, 79 and 80 of *Domestic Commerce*

(Here follow 3 Photolithographs, side folios 377-379)

Plaintiffs' Exhibit 20.

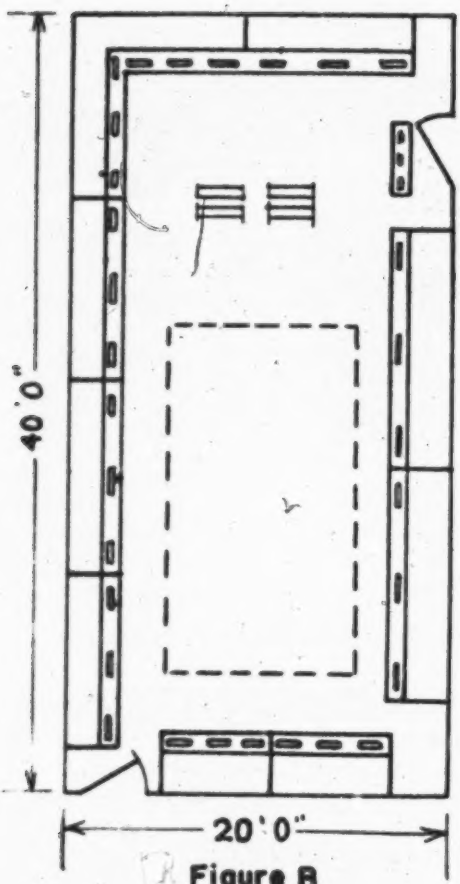


Figure B

After Modernization

—=sidewall showcase fluorescent lamps,
33 x 20 watts= 660 watts

——=Ceiling fluorescent lamps,
30 x 20 watts= 600 watts

Total=1,260 watts

fluorescent lights of 20 watts each were installed in these canopies. Thirty similar lights were placed in the ceiling and three more over the door. Merchandise in the displays stood out with no shadows and colors were distinguishable. Furthermore, the installation gave the store a modern appearance. This arrangement utilized 1,260 watts as compared with the 6,700 watts previously used, reducing the average monthly light bill to $24. The total cost of the renovation was $300.

Checking-Counter Bottleneck

Problem: The arrangement and method used at the checking counter of a grocery store slowed up checking out the customers, causing dissatisfaction.

Solution: An employee was stationed at the produce section to weigh and price the products purchased there. The counter-check girls thereafter merely received the merchandise, totaled the purchases, and completed the sale. This resulted in more rapid and accurate service.

Retailer C was a successful grocer in a suburban community in an eastern city of about a million people. He had been in operation at this one location for 7 years and his net annual sales volume approximated $350,000. The store was the self-service type with a good general lay-out. Two check-out counters were located at the front. Three large islands were located in the center and the meat department was in the back. On one side of the store were shelves of canned goods. On the other were the beverage department, dairy products, and fruit and vegetables. One large front window was used for fruit and vegetable display and the other for a canned goods display.

With the growth of business the proprietor became aware of customer dissatisfaction at the checking counters. Under the method used, the customer selected her purchases and then wheeled them to the check-out girl. The girl lifted the wire basket of merchandise up on the counter and segregated the canned products and meats from the fruit and vegetables. Meats were weighed and priced at the meat department and presented no problem but she had to weigh the fruits and vegetables, and the time required for this in addition to pricing the products slowed up the line. Customers frequently expressed annoyance at the delay.

Plaintiffs' Exhibit 20

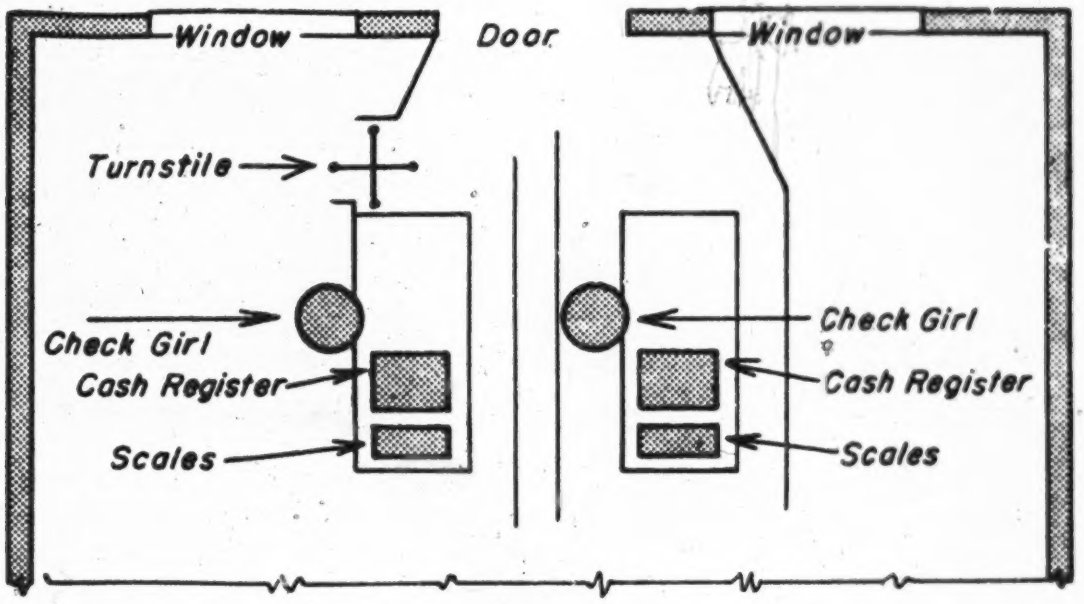


DIAGRAM A

Diagram of Check-Out Counter Section Before Change

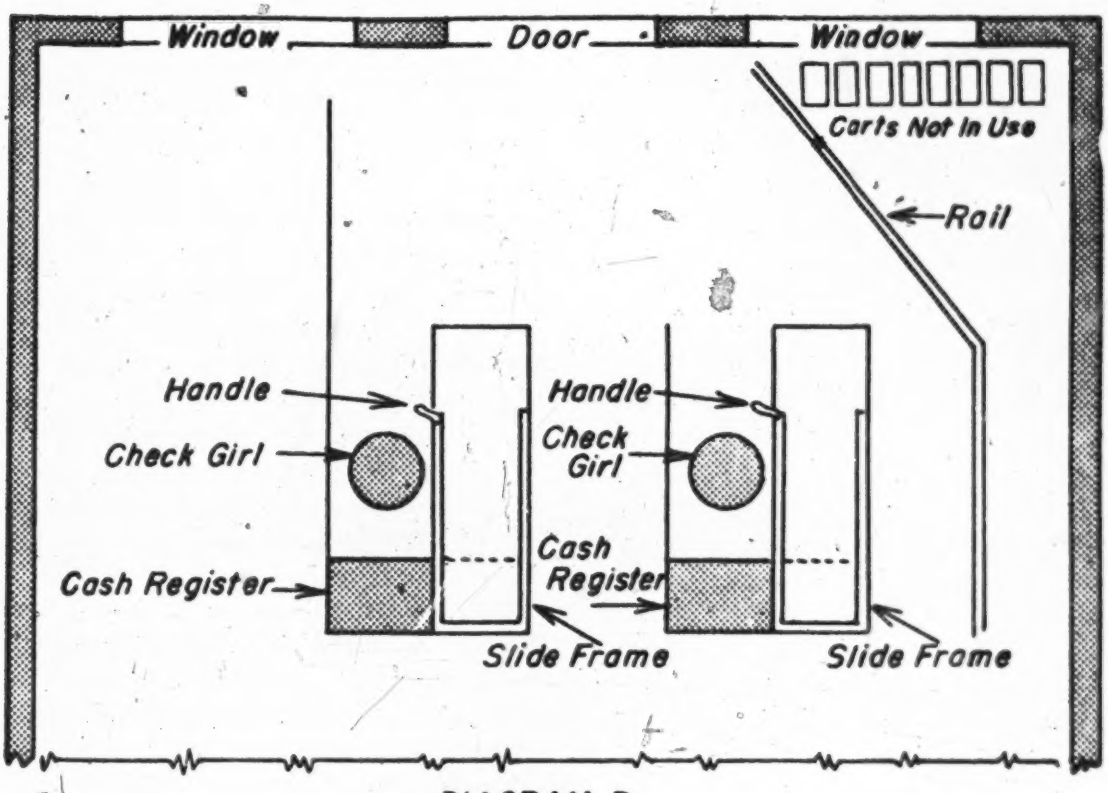


DIAGRAM B

Diagram of Check-Out Counter Section After Change

As the job of the check-out girl is important, capable girls were employed. Despite this it was easy for them to make a mistake on pricing the fruits and vegetables. For example, they might not always be sure of the grade of oranges purchased as several grades were carried. If

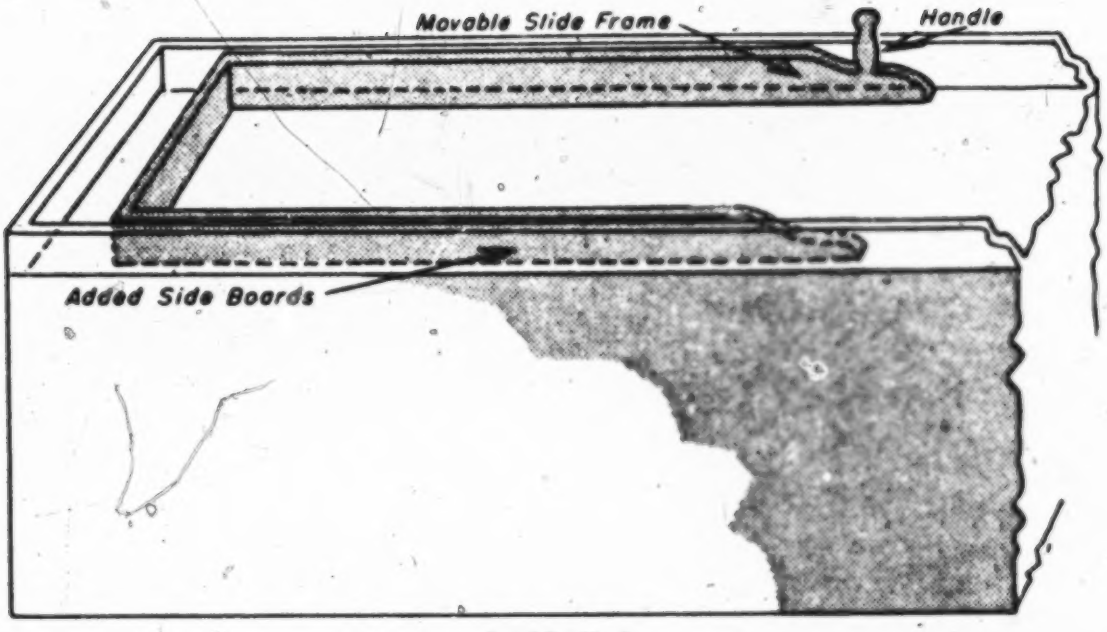


DIAGRAM C
Diagram of Slide Frame and Modified Counter

priced too high, the customer might catch the error, but this did not make for good customer relations. If priced too low, the store would stand a loss.

The problem of pricing and weighing the fruits and vegetables was studied and solved by placing a trained employee beside the fruit and vegetable counter. This employee assisted the customer in her selections and then weighed and priced the purchases. He also kept the displays arranged and built up additional sales by calling the customer's attention to produce on sale which she might not have intended to purchase.

There was still a problem of the dissatisfaction of the check-out girls in lifting the heavy baskets. To solve this, the check-out counters were modified. The only equipment now needed was the cash register which was placed beside the counter. On each side of the counter top upright boards about 6 inches high were added. A U-shaped slide frame was constructed to fit on top of the counter inside of the uprights and this was provided with a handle. The customer now placed her purchases individually on the counter at the end of the slide frame. The check-out girl merely moved the slide forward to the register to bring the merchandise in place for checking. She then pushed the slide back to its original position. While she was checking out the customer, the next customer placed her purchases inside the frame. By the time the first customer was through, the next customer was ready to have her merchandise pulled forward to the register.

The result of this modification was more sales, increased customer satisfaction, and improved working conditions. The total cost of the change was $300 exclusive of the cost of the produce man's salary.

Meeting Sales Competition

Problem: To stimulate sales of radios and repairs in a highly competitive area.

Solution: Sales were increased by providing specialized services for the customer.

D and his son decided to enter the radio repair business in 1929. They both were employed during the day

[fol. 380] Plaintiffs' Exhibit 21

Pages 43-46 of Super Market Merchandising Magazine, May, 1946.

(Here follow 4 Photolithographs, side folios 381, 381a, 381b, 381c)

Plaintiffs' Exhibit 21

U.S. DIST. COURT, E.D. OF
Pltf. Ex. 21
Deft. Ex.

ture frames. In these attractive display space, the manufacturer exhibit his product and his message right at the point of sale. The life-like objects and figures in these billboards attract the customers' eye immediately. These are rented out to the manufacturer for advertising.

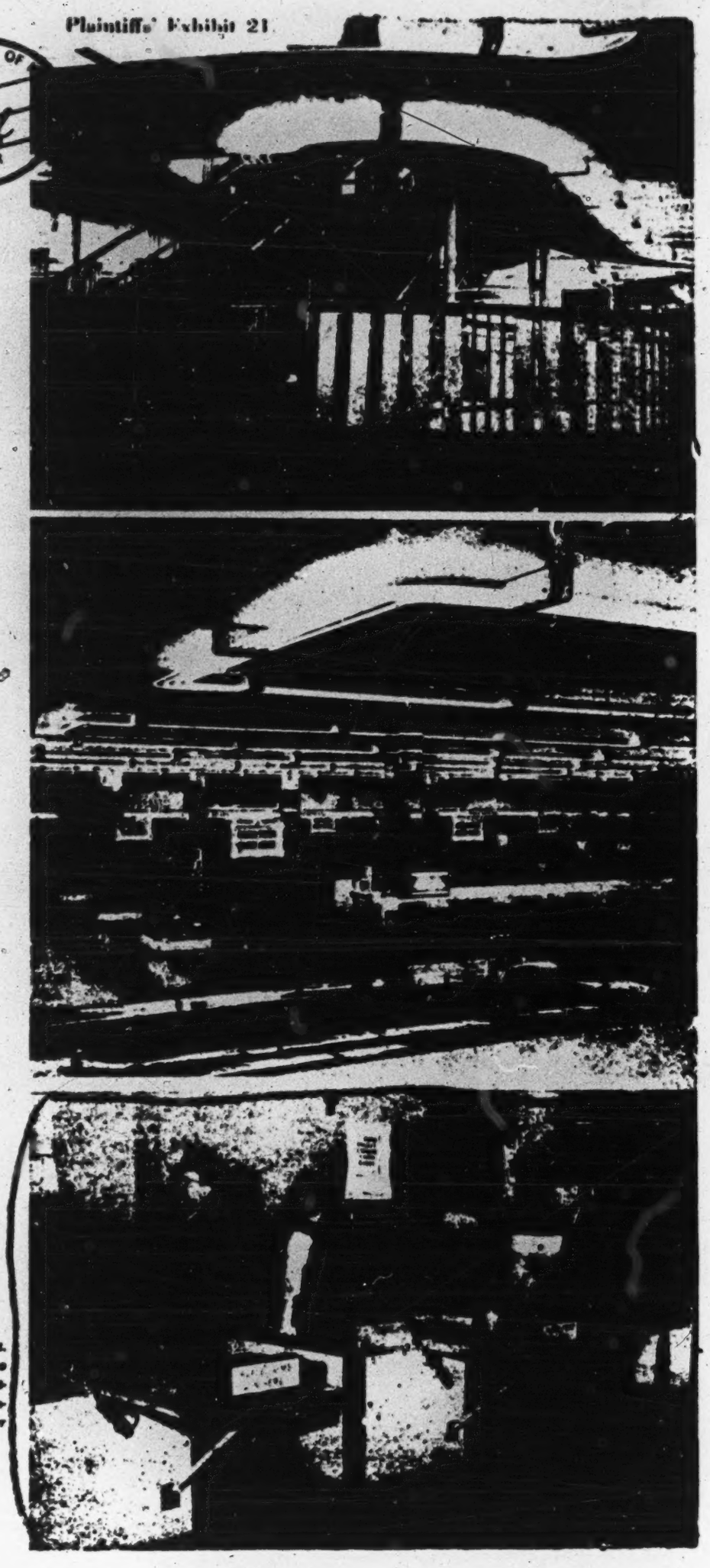
Situated within each quadrangle are clerks who weigh and wrap purchases, and answer customer requests. Many items are displayed at the service counters and are pre-packaged or price-marked so that customers have only to take the merchandise in order to be served. Thus, although the produce department is largely on a service basis, pre-packaged tomatoes, bagged oranges and bundled asparagus require no service and expedite sales.

Meat Department

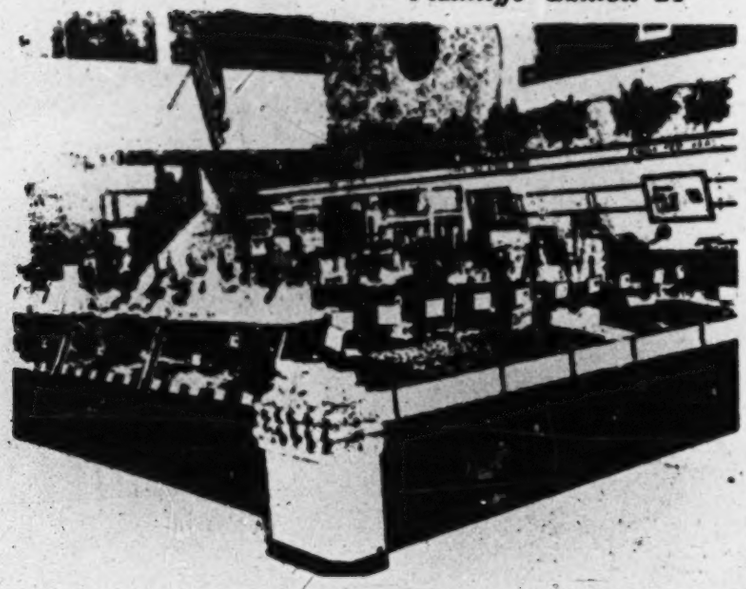
The meats, poultry and fish departments run almost the complete length of the store on the left-hand side—roughly 160 feet of refrigerated counters. To speed up service at the meat counters, Penn Fruit makes use of a call-number system, whereby customers take a numbered card from a counter display and await their turn. This permits customers to shop around the store until their number is in line for immediate service.

The poultry department devotes considerable space to the sales of cut-up chicken—wings, breasts and legs selling separately according to the particular taste of the customer.

The pre-cooked foods department, a development which Penn Fruit has pushed in all its stores, is particularly successful. It carries a considerable inventory of foods all prepared on the premises and sold through service and self-service. Self-service items



Three views of the grocery department. The wide staircase leads from upper to lower level (top). Cold cathode lighting gives shadowless illumination (center). Checkouts have sliding racks for quicker service (bottom).



The candy department carries a wide assortment of bulk and packaged candies.

are displayed in open, refrigerated cases and are packaged in sealed paper cartons with prices marked on the lids.

Variety of Items

The variety of pre-cooked items include: health salad, oyster pies, fish cakes, roast chickens, potato salad, beef pies, pickled beets, old-fashioned potato salad, creamed cabbage, pepper hash, Greek salad, liver pudding, beef stew, cole slaw, bread pudding, stewed prunes, macarino and cheese, drief beef. These items which are pre-packaged comprise health salad, cole slaw, potato salad and similar foods.

The bakery department sells Penn Fruit's own baked goods—bread, rolls, cakes and other sweet goods. A model bakery is housed on the premises for keeping counters full of fresh merchandise at all times. Penn Fruit, however, sponsors a central bakery operation servicing several stores. Candy manufacturing is also a central warehouse operation which distributes products to all the stores of the company. In the new market, confectionery is merchandised not only in the smart, streamlined shop which is an adjunct to the market, but it is also sold at confectionery counters within the market itself.

Penn Fruit does not confine its bakery and confectionery sales to its own products, however. In addition, it sells, bread, crackers, cookies, and similar products of nationally known advertisers.

Sales Success

The success of both candy and baked goods sales is based on the high reputation the company has been able to maintain in the production of highest quality foods. In point of fact, Penn Fruit Company has always insisted on quality in every department and will carry only the finest foods. In the meat department, for example, Penn Fruit backs up its reputation by offering to refund the money of any dissatisfied customer.

At night, the brilliant illumination in itself is an advertisement of Penn Fruit.

"Year in and year out, Penn Fruit Company has faithfully backed up their meat guarantee with tender, flavorful meats, every time," reads its advertisement. "If you aren't satisfied 100 per cent with these famed money-back meats your money will be cheerfully refunded." The same offer is made on seafood, certainly a difficult item to keep constantly fresh and flavorsome.

Quality Trade-Marked

Quality is trade-marked on practically every item—eggs are delivered every morning from nearby henneries and certified AA by Federal and State governments; pre-cooked foods use only the freshest ingredients, and the fruits and vegetables are the most select obtainable, for merchandising fresh produce has been the original, skillfully developed specialty of the Penn Fruit Company.

Frozen food merchandising evolves naturally out of Penn Fruit's experience with pre-cooked foods and fresh fruits and vegetables. Without exaggeration, the Penn Fruit Company is probably doing the best retail frozen food business in Philadelphia—a city which is considered in leading frozen food market in the United States. This Market Street food center boasts nine frozen food cabinets all of the reach-in type, with sliding glass doors in the top. Mirrors coupled with brilliant lighting give unusual visibility to the packages which are of all brands, national and private. A woman is in attendance at this section to answer customer questions as well as to assist in buying.

The frozen food cabinets are lined up in two rows of three, back-to-back abutting on the main entrance at the street level, and attract immediate attention of customers as they file into the store. The remaining three cabinets are located in the basement grocery department directly by the check-out counter where the lines form for carrying out merchandise.

Supplies of merchandise are not stored within the cabinets themselves, but are carted out from a sub-zero room in the storage area of the ma-

Plaintiffs' Exhibit 21

The cut-flower department (right) is located near the entrance on the main floor. The fountain - luncheonette department (below) can accommodate forty people.

ket, as they are required. Leaflets detailing methods for thawing and cooking frozen foods are distributed by the company to its customers as part of the necessary educational work that has to be done in selling these products.

The fountain luncheonette department sparkles with stainless steel, mirrors, and composition tile. It has a seating capacity for 40 people and extends practically the whole width of the rear wall.

Noteworthy Feature

Another noteworthy feature of this market is the cut flower department, situated astride the entrance to the main floor. This department is a further continuation of the type of selling carried on in other Penn Fruit Markets. Called the Garden Department, it sells a variety of high-quality flowers. Orchid corsages were going at $2 and $5 apiece; fresh cut roses at 6 for 49c. In addition, this department sells flowers and bushes for transplanting, such as everblooming roses. Grass seed and gladiolus bulbs were other leaders in this section.

Below in the basement grocery department, a battery of uninterrupted cold cathode fluorescent tubing suspended almost flush to the ceiling makes an able substitute for natural daylight. A broad marble staircase descends from the upper floor to the basement level, flanked on the right by a solid wall of mirrors. The sweeping width of the staircase provides ample space for traffic moving in any direction.

The gondolas are all of the eye-level type and are packed solid with merchandise numbering hundreds of different items. The Philadelphian can find practically anything he needs in food here, whether it is the popular, widely-bought foods, or some specialty items. There is a complete baby foods department.

The household necessities are ranged against the left wall in shelves that do not rise beyond the reach of the average housewife. The complete bank of wall shelves surrounding the grocery department, which is departmentalized, is surmounted by illuminated glass strips on which titles have been printed to signify the different types of goods contained in that section: such as "Paper Napkins," "Laundry Soaps," etc. This type of fluorescent sign is also employed along the walls of the departments on the main floor.

End Displays

End displays stand on platforms at least two feet off the floor. Supporting columns have mirrored surfaces, and are situated either within or adjoining gondola arrangements so as not to interfere with traffic in the aisles.

The checkout system in this mammoth operation is geared to handle the outgoing traffic as fast as possible. Forty employees man the checkouts. Nine checkouts serve the customers upstairs and ten serve the people in the grocery department. Both checkout systems employ "express highways" for shoppers who have a small number of parcels and who wish to avoid waiting on the regular lines.

Each checkout unit has a sliding rack which extends to the end of the counter. The customer unloads merchandise on the counter and the checker "rakes" in the lot, and registers the items.

There are two of these express checkouts on the main floor, and two below. Of the two, one routes out shoppers with a maximum of three items, and the other checks out a maximum of six items.

Both the basement and the main floor areas function independently in regard to checkouts. Customers carrying parcels from the main floor are checked out on that floor. If they wish to continue their shopping in the grocery department below, they must deposit their packages at a special U-shaped counter, where attendants will hold parcels for their owners, giving them a check in return. After they have completed shopping in the grocery department and are checked out, they get to the checking-service counter and hand the receipts-ticket to the at-

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Plaintiffs' Exhibit 21

fendant who will return the parcels. One of these units is on each separate floor.

The management feels confident that this system will not be a bottleneck, although it is studying this very carefully, not having had any experience with this method before.

The checkout people and key employees and supervisors, together with the entire staff of 200 employees, received extensive training in the other Penn Fruit Markets weeks before the opening. Mr. Edward Anderson, in charge, arranged for a "briefing" in which the employees were given the most important instructions necessary for carrying out their tasks. Other details were left for on-the-job learning with the assistance of the key experienced people, headed by the store manager, P. W. Everett.

2-Million Volume

The average Penn Fruit market does 2 millions dollar yearly volume. This new epoch-making Super Market is geared to do 5 million dollars a year, and the first two weeks' volume more that justifies this figure.

Its situation in a downtown shopping district is a departure from the usual trend of Super Market locations. Nevertheless, it is one that ingeniously utilizes every buying potential in Philadelphia. The Penn Fruit Company is an institution which knows what Philadelphians want and how to satisfy them. The thousands of people that thronged the streets leading to the new market on opening day, and who waited patiently while attendants allowed them to enter a hundred at a time—these crowds were the living testimony to the success of the Penn Fruit Company's newest venture.

Here's the PROOF on FRIGIDMIST

Top—Carl M. Short, owner and manager. Below — Vern Kline, in charge of Produce Department.

Grand Central Market

FRIGIDMIST CO.

Our FRIGIDMIST has increased our business well over 33⅓%. It has eliminated the losses that we used to sustain on vegetables due to spoilage. In addition to this, we are now selling the kind of vegetables that we could never handle before.

Our customers like the self-service and mass display features of Frigidmist, commenting on it very favorably, and we have seen women in our store that have never shopped in our store before. We are very glad to recommend it to our fellow grocery men throughout the country.

Carl Short

PUTS YOUR STORE IN THE QUALITY CLASS

FRIGIDMIST will save hundreds of dollars in vegetables as well as providing a beautiful display.

Write today for complete information, circulars and prices.

DISTRIBUTORS WANTED
Good profit for you.

FRIGIDMIST COMPANY
Plant No. 1, Wellington, Kansas

Audible Advertising At Point of Sale

A machine that automatically produces audible advertising at the point of sales has introduced a new angle to Super Market merchandising. The new machine, called the Advox or electronic merchandiser, introduced by Stanley A. Musselman, president of the William A. Schautz agency, has proven a great initial success. Reports state that in the first week of operation in a Pottstown, Pa., bakery; sales rocketed 300 per cent and went to 400 per cent in the second week.

The machines have no fixed price, are built to specification. Deluxe models are faced with aluminum, have the activating device and speaker built into the case, and feature a panel board figure of a baker who pops out two panel board bread loaves as the sales message is delivered. Other less elaborate models have separate amplifier units, and use either double uprights or a rubber mat as the activating device.

Encouraged by results of the pilot test in Pottstown, Pa., sponsors are now preparing further research. In Chicago, 50 selected stores will start controlled experiments to determine cost-return ratios of the Advox. Tests in Super Markets will be run in conjunction with the manufacturers of two nationally distributed small items.

[fol. 382] Plaintiffs' Exhibit 22

Page 50 of The Voluntary and Cooperative Group Magazine for March, 1947.

(Here follows 1 Photolithograph, side folio 383)

Plaintiffs' Exhibit 22.

DIST. COURT, E. D. OF MICH.
Plaintiff's Ex. 22
Deft. 330A

approximately $125,000 and our mark-up on produce averages 33⅓%. We average 4 turnovers a week."

The Big Star Super Market departmentalizes its produce department, displaying citrus fruits in one section, green vegetables in another, etc. Special precautions are taken to prevent over-displaying produce on the theory that fruits and vegetables lose their freshness and deteriorate rapidly when displayed for long periods of time at normal room temperature. Consequently, reserve stocks are held under refrigeration and brought out from time to time as needed.

"It takes good merchandising to operate a produce department successfully," Mr. Strange stated, adding: "Losses from shrinkage, spoilage and mark-downs decrease produce profits. Such losses are unnecessary if you buy carefully, use proper handling methods and protection, display the merchandise effectively and adopt the right sales method to keep your stock moving."

In the Big Star store, shoppers find the meat department in the rear of the market and pass the produce section on their way out. This makes it possible for the shopper to select her meat first and then purchase the fresh fruits and vegetables which will best round out the menu.

Mirror-back produce display units occupy almost the entire length of the market on the left side of the building. While the displays are attractive, no effort is made to use picturesque or patterned displays which discourage selection.

There are five employees assigned to this department. They wear white aprons. It is their duty to keep the displays neat and attractive and serve customers when service is desired.

Stocks are watched with an eagle eye. Any item that shows decay or deterioration is immediately removed from the regular produce department. In some instances these items are displayed on a small table known as the "Bargain Counter" and sold at a cut-rate price, but every effort is made to insure the customer receiving value for the money spent. Rather than sell customers inferior merchandise, the store takes a dead loss on an item or disposes of an entire lot.

Reserve supplies are kept in a large cold storage room which is equipped with automatic controls to provide the proper temperature for the items being held.

"Consumers purchase produce on a quality basis," commented Manager Strange, "and gladly pay for freshness, color and crispness. We have found that people just naturally like fresh fruits and vegetables better than canned or frozen foods for most purposes. That's why we believe that by operating an outstanding produce department we can pull customers into the store to the benefit of all departments. Moreover, homemakers like our pound-pricing method which gives them the assurance of value received for the money spent and enables them to compare values.

"Actually we have tried to strike a compromise between the old-fashioned way of selling produce and the modern method – but we always try to keep a little ahead of our customers' ideas of *ideal* service. And we find that the housewives in our community are thoroughly sold on the pound-selling method for produce."

The Big Star Super Market uses a half-page newspaper advertisement each Friday to acquaint Saturday shoppers with its specials. The layout features the produce department at the top of the advertisement, listing seasonable produce items and quoting prices by weight. Bold letters across the top of the advertisement urge readers to "Step Into Our Garden." And the fact that this market turns its produce stock 4 times a week is an indication that the readers do heed this suggestion.

General view of the Big Star Super Market, Columbia, South Carolina. Produce department can be seen at left. Note display sign which reads: "Step Into Our Garden for Variety, Vitamins and Values."

[fol. 384] Plaintiffs' Exhibit 23

Certified copy of assignment of patent in suit to Mr. Weingarten.

(Here follow 2 Photolithographs, side folios 385, 386-387)

Plaintiffs' Exhibit 23.

DEPARTMENT OF COMMERCE

UNITED STATES PATENT OFFICE

To [illegible]ersons to whom these presents shall come, Greeting:

THIS IS [illegible]ERTIFY that the annexed is a true copy from the records of this [illegible]ce of an Instrument of writing.

Recorded November 7, 1938,

in

Liber [illegible]177, page 81 of Transfers of Patents.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this nineteenth day of December , in the year of our Lord one thousand nine hundred and forty-six and of the Independence of the United States of America the one hundred and seventy-first.

[illegible]:

[illegible]hief of Division.

Casper W. Ooms

Commissioner of Patents.

3328 *Plaintiffs' Exhibit 23*

Docket 1741

THE STATE OF TEXAS)
COUNTY OF HARRIS)

LIBER A177 PAGE 81

WHEREAS, I, Ellis D. Turnham, of Houston, Harris County, Texas, am the inventor and sole owner of a certain new and useful improvement in MERCHANDISE HANDLING, application for patent on which has been executed by me of even date herewith, preparatory to obtaining United States Letters Patent thereon; and

WHEREAS, Joe Weingarten of Houston, Harris County, Texas, is desirous of acquiring all my right, title and interest in and to the invention in MERCHANDISE HANDLING above identified;

NOW THEREFORE, for and in consideration of One Dollar ($1.00) to me in hand paid, the receipt of which is hereby acknowledged and for other good and valuable considerations, I, Ellis D. Turnham, do hereby sell, assign, and convey unto the said Joe Weingarten all my right, title and interest in and to the invention in MERCHANDISE HANDLING above identified, and the Commissioner of Patents is hereby requested to issue said Letters Patent in accordance with this assignment.

EXECUTED this the 25 day of Oct., A.D. 1938.

Ellis D. Turnham

THE STATE OF TEXAS)
COUNTY OF HARRIS)

Before me, the undersigned authority, on this day personally appeared Ellis D. Turnham, known to me to be the person whose name is subscribed to the foregoing instrument of writing and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office, this the 25 day of Oct., A.D., 1938.

RECORDED
Transfers of Patents
U.S. Patent Office
NOV - 7 1938
LIBER A177 PAGE 81
COMMISSIONER OF PATENTS

Bessie Fair
Notary Public, in and for
Harris County, Texas.

386-387

[fol. 388] Plaintiffs' Exhibit 24

File wrapper of Turnham Patent 2,242,408 in suit.

Plaintiffs' Exhibit 24.

DEPARTMENT OF COMMERCE

UNITED STATES PATENT OFFICE

To all persons to whom these presents shall come, Greeting:

THIS IS TO CERTIFY that the annexed is a true copy from the records of this office of the File Wrapper and Contents, in the matter of the

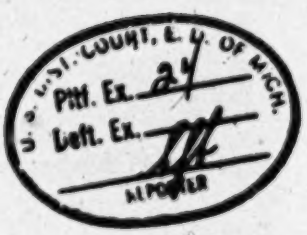
Letters Patent of

Ellis D. Turnham, assignor to
Joe Weingarten,

Number 2,242,408, Granted May 20, 1941,

for

Improvement in Merchandise Handlers.



IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington, this fifth day of December, in the year of our Lord one thousand nine hundred and forty-six and of the Independence of the United States of America the one hundred and seventy-first.

ATTEST:

Chief of Division.

Casper W. Ooms

Commissioner of Patents.

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Plaintiffs' Exhibit 24

287396 18-1/1

~~1935~~

DATED MAY 20 1941.

DIV. 3-4

(EX'R'S BOOK)

Name ELLIS D. TURNHAM,

Care of Mrs. Margaret, 4 Houston, Texas.

of HOUSTON,

State of TEXAS,

Invention MERCHANDISE HANDLER

Division of Application No. , filed , 19

	ORIGINAL	RENEWED
APPLICATION FILED COMPLETE	OCT 28 , 1938	
PARTS OF APPLICATION FILED: Petition, Specification, Oath, First Fee $30, 1 sheets Drawings,	OCT 28 , 1938	
Examined and passed for Issue	MAR 27 1941 , 193	Reexam'd and passed for Issue , 193
	Exr. Div. 4	Exr. Div.
Notice of Allowance	MAR 27 1941 , 193	Notice of Allowance , 193
	By Commissioner	By Commissioner
Final Fee $30	Apr 19 , 1941	Final Fee , 193

Attorney JESSE R. STONE & LESTER B. CLARK 2200 GULF BLDG HOUSTON TEXAS

Associate Attorney

No. of Claims Allowed 6 Print Claims 1 in O.G. Class 186-1

Title as allowed Merchandise Handler

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Plaintiffs' Exhibit 24

OCT-28-38 081652 D ~Chec 30.0

FRANK ANDREWS
(DECD. 1934)
ROBERT M. KELLEY
H. S. KURTH
ROBERT F. CAMPBELL
PALMER BRADLEY
W. ST. JOHN GARWOOD
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J. L. LOBRATT
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JESSE R. STONE
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HOMER E. HARDY
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ANDREWS, KELLEY, KURTH & CAMPBELL
ATTORNEYS
GULF BUILDING
HOUSTON, TEXAS

MAIL DIVISION
OCT 23 1938
U.S. PATENT OFFICE

October 25, 1938

Re: Docket 1741

Commissioner of Patents,
Washington, D. C.

Dear Sir:

We enclose herewith application for patent of Ellis D. Turnham, together with one sheet of drawing and the filing fee of $30.00, for an improvement in Merchandise Handler.

Yours very truly,

Jesse R Stone
+
Lester B. Clark

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Plaintiffs' Exhibit 24

MAIL DIVISION
OCT 23
U.S. PATENT OFFICE

DIVISION 8
2911

237396

PETITION AND POWER OF ATTORNEY

TO THE COMMISSIONER OF PATENTS:

Your petitioner, Ellis D. Turnham,

a citizen of the United States, and a resident of Houston, in the County of Harris and State of Texas, whose postoffice address is 908 Prairie Avenue, Houston, Harris County, Texas prays that Letters Patent may be granted to him for the improvement in Merchandise Handler

set forth in the annexed specification; and he hereby appoints JESSE R. STONE, Registration No. 18,871, and LESTER B. CLARK, Registration No. 12,677, address 2200 Gulf Building, Houston, Texas, his attorneys, each of them with full power to act in matters of substitution and revocation, to prosecute this application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent Office connected therewith.

Signed at Houston, in the County of Harris and State of Texas, this 25 day of October, A. D. 1938.

Ellis D Turnham

(Inventor's FULL FIRST Name)

SPECIFICATION

TO ALL WHOM IT MAY CONCERN:

Be it known that I, Ellis D. Turnham,

a citizen of the United States residing at Houston, Harris County, Texas

have invented a certain new and useful improvement in Merchandise Handler

of which the following is a specification:

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The invention relates to a device for assisting in the handling of merchandise at the checker or cashier's station or stand in grocery stores and the like.

In cash and carry stores it is the practice for the customer to gather up the goods or articles which have been selected and to approach the cashier's stand usually carrying the articles in a basket. It is necessary for the customer to stand in line and eventually his heavy basket of articles is deposited on the counter in front of the checker. It is then necessary for the checker to pick out the articles from the basket to record them individually on the register and sort them as they are picked out of the basket in order to group together the various articles. Many times where two or three cans or objects of the same type of article are sold for a lump sum, such as three cans for twenty-five cents, the checker must hunt through the entire basket of goods to pick out these several similar cans or articles. As a consequence thereof considerable delay is encountered at the checker's stand due to the fact that the checker must perform all of these operations while recording the price of the goods on the register. The result has been that in larger stores a great number of checkers have been required and each checker must be provided with a register. Registers of this type cost several hundred dollars and as a result the store owner has been put to considerable investment in registers and considerable expense in maintaining an excessive number of checkers in order to prevent delay and dissatisfaction on the part of the customers.

It is one of the objects of the present invention to simplify and reduce the acts which must be performed by the checker and sort the articles and arrange them in a manner whereby they can be conveniently checked.

Another object of the invention is to provide a frame work for a checker counter whereby the goods of each customer can be grouped together and moved to a position convenient to the check to be recorded.

Another object of the invention is to provide a pusher stand for checker counters in grocery stores.

Another object of the invention is to sort the articles of a customer and arrange them together so that the customer may observe the absence of some items and may at the same time estimate the total cost thereof so as to save the time of the checker when the purchases are being recorded.

Another object of the invention is to provide a checker stand so that it will accompdate a pusher, a checker and a sacker, each of whom may perform specific acts in order to facilitate the registering and disposing of a customer in an efficient manner.

Still another object of the invention is to provide a frame whereby the goods of a customer may be grouped together and moved along the counter as a unit.

Other and further objects of the invention will be readily apparent when the following description is considered in connection with the accompanying drawing:

Fig. 1 is a top plan view looking down upon a counter which has been equipped with the invention.

Fig. 2 is a side elevation of the counter of Fig. 1.

Figs. 3 and 4 are sections taken on the lines 3-3 and 4-4 respectively of Fig. 1.

In Fig. 2 the cashier or checker's counter is indicated generally at 2 and as seen in Fig. 1 is an elongated counter having a top 3 thereon. It is usual that a guard rail or fence 4 be positioned adjacent the rear of the counter so as to provide a space 5 as seen in Fig. 1. The cash register or recording register 6 is usually positioned as seen in Fig. 1 closely adjacent the location where the checker will stand. This location is indicated at 7. While at the opposite end of the area 5 as at 8 will be the position of the person who picks up the articles and places them in sacks or bags to be handed to the customer. The customer passes along the front edge 10 of the counter. The construction thus far described is that usually employed in checker stands or counters of this type and as previously noted the customer at the present time approaches the area 12 and places his basket in position on top of the counter, whereupon the checker removes the goods from the basket and records them on the register 6. A sacker picks up the articles and places them in the sack. This arrangement, however, has been found unsatisfactory for it is necessary for the customers to line up to the left of the position 12, each customer carrying a heavy basket of goods.

Plaintiffs' Exhibit 24

The present invention contemplates the provision of an extension on the counter such as seen at 15 in Fig. 1. This extension may be of the same width as the top 3 of the counter 2 and may be of any desired length. This extension 15 is provided with top 16 upon which the various articles 17 are deposited either by the customer or by what will be known hereinafter as the pusher boy. In many of the stores small wagons or carraiges are provided upon which one or two baskets may be deposited and these carraiges are wheeled around by the customer while he is selecting the various articles which he desires to purchase. In any event the customer approaches the cashier's extension or stand 15 with the basket and the pusher boy quickly removes the articles 17 from the basket and deposits them on the top 16. A particular advantage of this arrangement is that in the majority of instances each of the articles 17 has a price marked thereon and the pusher boy in depositing them on the counter will arrange the goods with the prices uppermost or exposed so that they can be conveniently observed by the checker. Another function of the pusher boy is to sort the goods and where several articles are being sold for a lump price these several articles can be grouped together so that the checker may observe that this group of articles have been purchased for the lump sum price.

When the pusher boy has deposited the articl s as seen in Fig. 1 in position on the counter, they are then ready to be moved along the top of the counter to the cashier's stand as at 12 to accomplish the movement of all the articles 17 as a unit and framework 20 has been slidably positioned on the top 16 of the extension 15 and this frame is arranged to be moved to the right as viewed in Fig. 1 so that the ends 21 thereof can move forwardly such as at 22. This frame 20 has a handle 24 thereon which may be grasped by the pusher boy in order to move it or the frame may be grasped directly.

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As seen in Fig. 1 the framework is several inches in height and is of a U-shape having a front side bar 26 and a rear side bar 27 which are joined by the end bar 28. In this manner the group of articles 17 are enclosed by the framework and as the frame is pushed along the top of the counter, the group of goods are compelled to slide with the framework so that they are advanced to a position convenient to the checker.

In Figs. 3 and 4 the bar construction of the framework has been illustrated wherein the side bars are slidable on the top of the counter 16 and if desired a stop plate 29 may be affixed to the end of the counter so that the end bar 28 will abut against it to prevent the frame from moving off from the end of the counter. This construction is seen in Fig. 3.

Fig. 4 shows the arrangement of the side bars 27 and 26 in order to anchor the frame on the top of the counter 15. This arrangement includes a channel member 30 which is anchored to the top 16 of the counter and fits an interfitting channel member 31 therein which is fixed to the side bar 27 by bolts or screws 32. In this manner the framework 20 cannot be elevated beyond the height of the channel 30 because of the arrangement of the interfitting legs of the channels 30 and 31. Thus the frame cannot be inadvertantly pushed out of position. In order to guide the frame in its sliding movement the side bar 26 has a base 35 thereon which fits in a channel 36 fixed on the rear edge 37 of the top 16. This base or edge 35 guides the frame in its sliding movement as it travels along the channel 35. It will be noted that the channel 30 is disposed inwardly a short distance from the edge 10 of the counter as seen in Figs. 1 and 4 so that its sliding movement will not strike a customer who might be leaning against the edge of the counter.

In operation the pusher boy takes the goods from the customer, deposits them on the counter 16 within the frame 20, sorting the goods and arranging them in a manner so that they can be conveniently checked by the cashier. When the cashier has disposed of the previous customer, the pusher boy then moves the framework 20 to the right as viewed in Fig. 1 so as to push all of the customer's articles up to the cashier as a unit or in a group together. The frame is then withdrawn and the pusher boy proceeds to deposit the next customer's goods within the frame. The checker meanwhile can record on the register 6 the prices of all of the goods and the sacker then picks up the goods as they are recorded and places them in bags or sacks for the customer. The customer is satisfied because he has been immediately relieved of the articles which he has selected, goods have been placed conveniently before him so that he may observe any errors and roughly estimate the general cost. The prices are all displayed conveniently for him and he does not feel uneasy due to the fact that the goods are not properly grouped or that someone else's articles have been included with those of his own selection.

In actual practice the provision of this arrangement has substantially reduced the time per customer for checking the goods purchased and has resulted in a substantial reduction in the number of registers required and the number of checkers which are necessary to take care of a given number of customers.

Plaintiffs' Exhibit 21

What is claimed is:

1. The combination with a cashier's counter of an extension thereon, a top on said extension to receive merchandise, and a frame member movable relative to the extension and counter to slide the merchandise along the said top and extension to a position on said counter.

2. In a cash and carry type of grocery, a cashier's counter, a register on the counter, a cashier station, a portion on the counter to receive the merchandise being purchased, and means slidable on the surface of the counter to move such merchandise to the cashier station.

3. In a cash and carry type of grocery, a cashier's counter, a register on the counter, a cashier station, a portion on the counter to receive the merchandise being purchased, and means slidable on the surface of the counter to move such merchandise to the cashier station, so that all the articles of merchandise of a customer will be positioned together.

4. In combination with a counter for checking merchandise, a top on the counter, a rack enclosing the end of the top and slidable along the top to slide the merchandise after it has been sorted along the top of the counter.

5. A sorter rack for checker counters including a frame, a guide at one side of the counter for said frame to slide longitudinally of the counter, a hold down guide on the other side of the counter, and interfitting means on said frame and guide.

6. A checker's stand of the character described, a pusher frame thereon, means to guide said frame in sliding movement so that goods placed on the end counter within said frame may be pushed along the counter in a group to a position adjacent the checker.

Plaintiffs' Exhibit 24

IN TESTIMONY WHEREOF I hereunto affix my signature this 25 day of Oct.,
A. D. 193 8

Ellis D Turnham

(Inventor's FULL FIRST Name.)

OATH

STATE OF TEXAS }
County of HARRIS }

Ellis D. Turnham,

the above named petitioner, being sworn, deposes and says that he is a citizen of the United States and resides at Houston, Harris County, Texas,

that he verily believes himself to be the original, first and sole inventor of the improvement in Merchandise Handler

described and claimed in the annexed specification; that he does not know and does not believe that the same was ever known or used before his invention or discovery thereof, or patented or described in any printed publication in any country before his invention or discovery thereof, or more than two years prior to this application, or in public use or on sale in the United States for more than two years prior to this application; that the said invention has not been patented in any country foreign to the United States on an application filed by him or his legal representatives or assigns more than twelve months prior to this application; and that no application for patent on said improvement has been filed by him or his legal representatives or assigns in any country foreign to the United States.

Ellis D Turnham

(Inventor's FULL FIRST Name.)

Sworn to and subscribed before me this 25 day of Oct., A. D. 193 8.

Bessie Frick

Notary Public, in and for Harris County, Texas

237396

408

May 20th

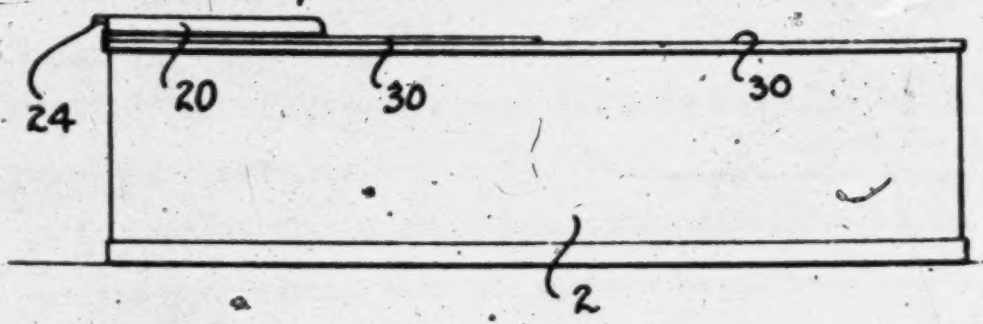

Fig. 2.

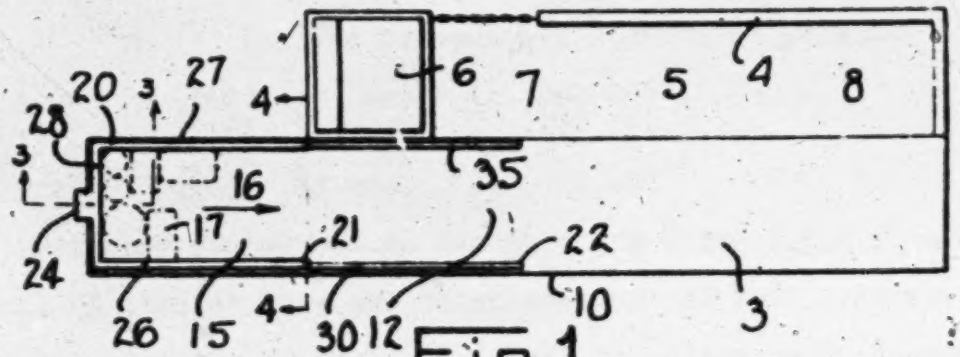

Fig. 1.

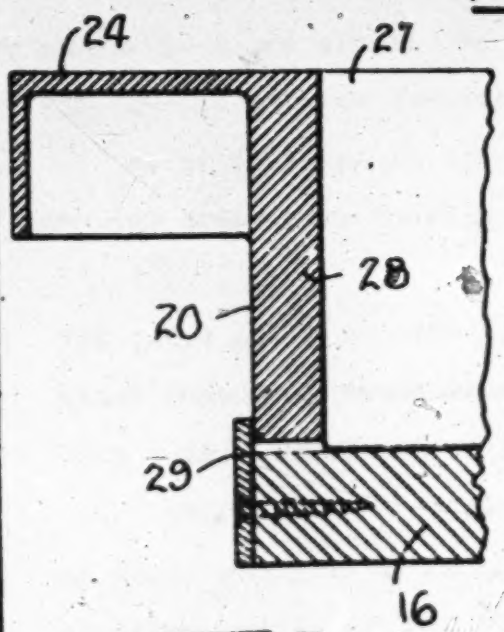

Fig. 3.

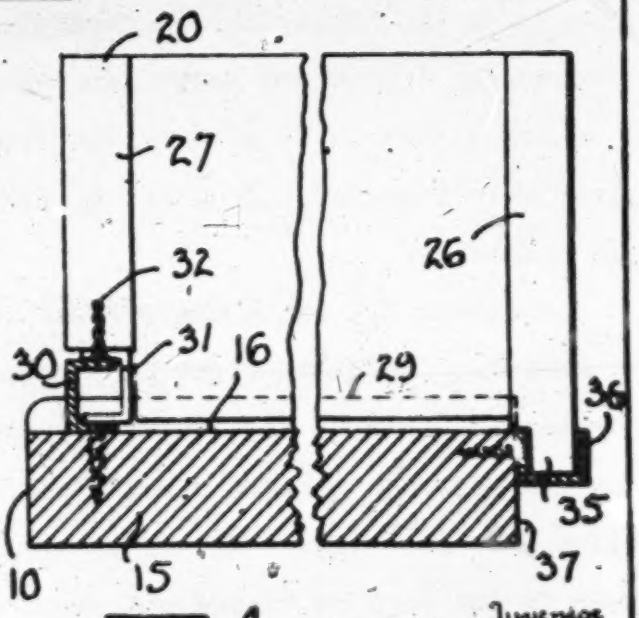

Fig. 4.

Inventor
E.D. TURNHAM.
Jesse R. Stone
Lester B Clark
Attorneys.

4 9 186-1

Plaintiffs' Exhibit 24

Div. C Room 3805

Address only "The Commissioner of Patents, Washington, D. C." and not any official by name

DEPARTMENT OF COMMERCE
UNITED STATES PATENT OFFICE
WASHINGTON

Paper No. 3

All communications regarding this application, should give the serial number, date of filing, name of the applicant

LMW/hs

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents.

Applicant: Ellis J. Furnham

Ser. No. 237,396
Filed Oct. 28, 1938
For Mark Check Disk Handle.

Jesse R. Stone &
Lester B. Clark
2200 Gulf Bldg.
Houston, Texas.

MAILED
FEB 2 - 1939

This application has been examined.

The following references are made of record:

Harvey,	1,350,996,	Aug. 24, 1920,	20-1.7
Hagar,	1,233,775,	July 17, 1917,	312-187
Rorrer,	1,987,797,	Jan. 15, 1935,	312-187 X
Marsh,	794,809,	July 18, 1905,	312-187 UX

Claims 1,2,3,5 and 6 are rejected on the ground that they are indistinct. What is the meaning of the word "stop", in line 2 of claim 1? The meaning of line 1 of claims 2 and 3 is not clear. The claims should definitely describe an article as, ---A cashier's counter for a cash and carry type of grocery comprising---. Claim 5 is indistinct as to whether the counter is intended to be positively included. In claim 6, there is no antecedent for "the end counter".

Claims 1,2,3 and 6 are further rejected as being fully met by Rorrer. The frame might be the basket which is pushed along the top of Rorrer's counter upon members 15. These claims are further rejected for the reason that they present nothing patentable over either Harvey or Marsh, whose carriers might be made in the form of frames and might be used to convey articles upon a grocer's counter.

Claims 2 and 3 are rejected further on the ground of aggregation of elements. The cash register is an independent article.

Claim 5 is further rejected on Harvey or Marsh when considered with Hogar. The carrier of either Harvey or Marsh might be

Plaintiffs' Exhibit 21

Ser. No. 237,396.....2.

mounted by means of a track device such as that of Hagar.

Claim 4 is rejected as being for an incomplete combination. As described, the counter and rack might be entirely separate and independent articles.

It is thought that a claim describing specifically the rack and its combination with the counter might be allowable over the references cited.

m.m.w.

L. R. Adams
Examiner.

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Plaintiffs' Exhibit 24

DIVISION

DIVISION 8

Paper no. 4
July 28, 1939

IN THE UNITED STATES PATENT OFFICE

IN RE: APPLICATION OF
ELLIS D. TURNHAM
SERIAL NO. 237,396
FILED: OCT. 28, 1938
FOR: MERCHANDISE HANDLER

Div. 8, Room 3885

Commissioner of Patents,
Washington, D. C.

Dear Sir:

Responsive to the office communication of February 2, 1939, the applicant desires to amend as follows:

Claim 1, line 2, change "stop" to -- top --.

Claim 2, line 1, after "grocery" insert a comma.

Line 2, cancel "a registar on the counter," .

Claim 3, line 1, after "grocery" insert a comma.

Claim 4, line 3, after "and" insert -- means whereby said rack is --.

Claim 5, line 1 before "checker" insert -- attachment to --.

Claim 6, line 1, after "stand" insert -- including a counter -- .

Line 3, before "counter" insert -- of said --

Line 8, before the period insert -- by movement of said frame -- .

Plaintiffs' Exhibit 24

Kindly add the following claims:

5 6 7. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a ^ frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier.

6 6 8. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a ^ frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier, said frame being open at the end adjacent the cashier's stand and readily movable to be returned over said portion so as to receive the merchandise of another customer while the cashier is occupied with the previous group.

REMARKS

Each of claims 1, 2, 3, 5 and 6 have been amended slightly to comply with the suggestions of the Examiner. It is believed that the commas inserted in line 1 of claims 2 and 3 makes the recitation definite and Claims 5 and 6 have each been amended to more particularly point out the structure.

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It is believed that the recitation in these claims complies with the suggested wording of the Examiner and unless the Examiner has some particular reason for the exact wording which was suggested, the applicant would prefer to retain the wording originally presented.

Claims 1, 2, 3 and 6 are presented for reconsideration over Rorrer because the applicant finds in this patent no suggestion of his inventive idea or no suggestion of the structure which is capable of carrying out the inventive idea. Surely the Examiner appreciates a distinction of a device as presented by the claims of this applicant and the device set forth by the Rorrer patent.

The argument just presented applies equally well to Harvey and Marsh because not one of these devices have any suggestion of the applicant's inventive idea, namely the expediting of the cashier's operations by having an extra attendant who will arrange and sort the merchandise upon the counter at a point spaced from the cashier so that when the cashier is ready for the group of merchandise which is so deposited, the entire group would be moved about to a point convenient to the cashier by a single manipulation of the frame structure.

Claim 3 is presented for reconsideration over the rejection on the ground that it constitutes an aggregation because the applicant believes that he has devised a new and novel combination of the register, the counter and the sliding frame. Unless and until the Examiner finds this combination the applicant desires to retain a claim of this scope in the application.

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Plaintiffs' Exhibit 24

Claim 5 is presented for reconsideration over either Harvey or Marsh when considered in view of Hagar because the applicant is unable to understand just how these devices will be combined and where the Examiner obtains the pattern by which he works up this rejection. If the Examiner obtains his pattern from the applicant's disclosure, then the rejection is improper.

Claim 4 is presented for reconsideration after a slight amendment and is believed to now properly describe the construction of the applicant's device.

New claims 7 and 8, directed to the details of construction of the applicant's device, are presented for favorable consideration. None of the references suggest this structure as is indicated by the arguments above. Favorable consideration of the new claims is therefore asked.

Respectfully submitted,

Jesse R Stone

Chester B Clark

Counsel for Applicant.

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15

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Plaintiffs' Exhibit 24

Div. 8 Room 3885

Address only "The Commissioner of Patents, Washington, D. C." and not any official by name

DEPARTMENT OF COMMERCE
UNITED STATES PATENT OFFICE
WASHINGTON

Paper No. 5

MMW/hs

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents.

Applicant: Ellis D. Turnham

Ser. No. 237,396
Filed Oct. 28, 1938
For MERCHANDISE HANDLER.

Jesse E. Stone & Lester B. Clark
2200 Gulf Bldg.
Houston, Texas.

MAILED
NOV 14 1939

Responsive to amendment filed July 29, 1939.

Several discrepancies in the drawings have been noted. Apparently numerals "26" and "27" in Fig. 1 should be transposed and "27" in Fig. 3 should be "26". Channel member 36 is not shown in Fig. 1 as mounted on edge 37 of the counter and extending therefrom as in Fig. 4. If there is a recess in the counter to accommodate it, this should be stated in the description.

Claims 1,2,3 and 6 are again rejected as being unpatentable over the references previously applied to them. It would require no inventive thought to utilize the devices referred to in the manner described in view of the common use of baskets which are slidable along the tops of counters to bring articles to a position before a cashier. The Examiner recognizes that applicant's device is different in purpose and use from the devices of the references but it is necessary that the claims bring out a patentable distinction. No claim can be allowed which is readable upon a counter extending beyond the position of the cashier and having a basket thereon for shifting articles to such position. This is an arrangement seen every day in grocery stores. It would not be an act of invention to provide guiding means for such a basket.

Any basket is a "rack" or a "frame".

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It is thought that a claim describing the frame as

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Plaintiffs' Exhibit 21

Ser. No. 237,396.....2.

bottomless and open at one side and combined with one end of a counter for sliding movement may be allowed.

Claims 7 and 8 are rejected as claim 1. It is thought that claim 8 would be rendered allowable by the insertion of the word "bottomless" before "frame" in line 4.

The word "relative", in claim 1, should be relatively.

The rejection of claims 2 and 3 as being indistinct in line 1 is repeated. The reference to a "grocery" implies that the "grocery" is included in the claim and renders the claim indistinct as to what is included. It is not usual nor necessary to include in a claim for an article of furniture the room or surroundings in which the article is intended to be placed. It is not necessary that the suggested language be used to overcome this rejection.

Claims 4 and 5 are rejected for the reason that they are inaccurate in describing the frame as a "rack". As the word "rack" is used in the Patent Office, in this sense, it means a supporting structure.

Claim 5 as amended is still indistinct and is again rejected for that reason. This claim is further rejected as being incomplete. It purports to cover a "rack" for attachment to a counter but includes guiding means portions of which are secured to the counter. The claim should positively include the counter or the guides should be described as for attachment at one side and on the other side of a counter.

mam.w.

T. L. Adams
Examiner.

Plaintiffs' Exhibit 24

Paper No. 6
May 11, 1940

PATENTS
MAY 14 1940
DIVISION 8

IN THE UNITED STATES PATENT OFFICE

IN RE: APPLICATION OF
ELLIS D. TURNHAM
SERIAL NO. 237,396
FILED: OCT. 28, 1938
FOR: MERCHANDISE HANDLER

Div. 8, Room 3885

Commissioner of Patents,
Washington, D. C.

Dear Sir:

Responsive to the office communication of November 14th the applicant desires to amend as follows:

Claim 1, line 3, cancel "frame member" and substitute -- an open bottom enclosure -- ; change "relative" to -- relatively --.

Claim 2, line 1, cancel "In" and substitute -- A cashier's counter in --; cancel "a cashier's".

Line 2, cancel "counter".

Line 4, cancel "to" and substitute -- enclose and --.

Claim 3, line 1, cancel "grocery,a".

Line 4, cancel "slidable" and substitute -- to enclose such merchandise -- ; after "counter" insert -- and --

Line 5, after "move" insert -- with --

Cancel claims 4 and 5.

Claim 6, line 2, cancel "a" and substitute -- an open bottom --.

Claim 7, line 4, after "a" insert -- bottomless three sided --.

Claim 8, line 4, after "a" insert -- bottomless --.

X 18

Plaintiffs' Exhibit 24

REMARKS

A print of the drawing showing corrections in red is submitted herewith and it is asked that these corrections be made in accordance with the separate letter to the Office Draftsman.

Claims 1, 2, 3 and 6 are presented for reconsideration over the rejection on Rorrer, Harvey or Marsh because of the fact that as amended these claims point out that there is either an open bottom enclosure or that the means is to enclose the merchandise or that it is an open bottom frame. All of this information is in accordance with the very kind suggestion given by the Examiner and it is thought that these amendments place the claims 1, 2, 3 and 6 in condition for allowance.

Claims 7 and 8 are presented for reconsideration after being amended to point out that the frame is a bottomless three sided frame. It is thought that these elements distinguish the claims from the references and allowance thereof is asked.

Claims 2 and 3 have each been amended to avoid the rejection that they are indistinct and are now believed to be in proper form.

It is believed that the application is in condition for allowance which is respectfully asked.

Respectfully Submitted,

Jesse R Otoe
Victor B Clark
Counsel for Applicant.

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-2

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PATENT OF

Plaintiffs' Exhibit 24

MAY 14 1940

Docket 1741 40-
Paper No. 7
May 11, 1940 DIV.

IN THE UNITED STATES PATENT OFFICE

IN RE: APPLICATION OF
ELLIS D. TURNHAM
SERIAL NO. 237,396
FILED: OCT. 29, 1938
FOR: MERCHANDISE HANDLER

Div. 8, Room 3995

LETTER TO THE OFFICE DRAFTSMAN

Commissioner of Patents,
Washington, D. C.

ACCOUNT

Dear Sir:

Please correct the drawings in this case in accordance with the alterations shown in red on the attached print.

We will appreciate your returning the print to us when it has served this purpose and charging the cost of these corrections to our standing account.

Respectfully submitted,
Jesse R Stone
Lester B Clark
Counsel for Applicant.

RECEIVED IN DIV. C
MAR 3- 1941
CORRECTION
DIV. C
MAR 13 1941
CORRECTED
MAR 13 1941

31-

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G

Plaintiffs' Exhibit 24

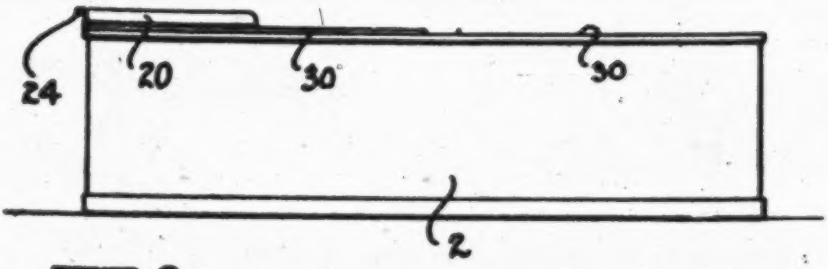

Fig. 2.

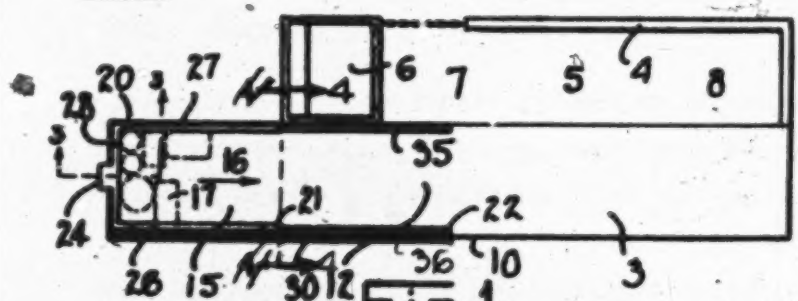

Fig. 1.

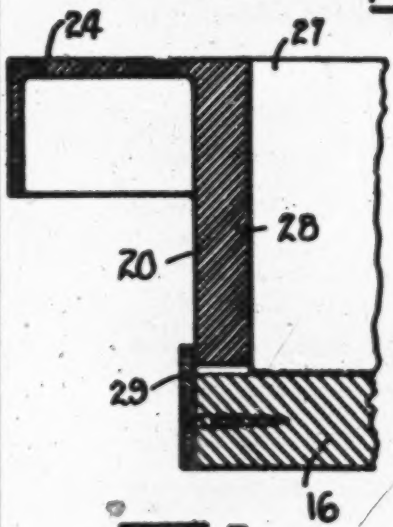

Fig. 3.

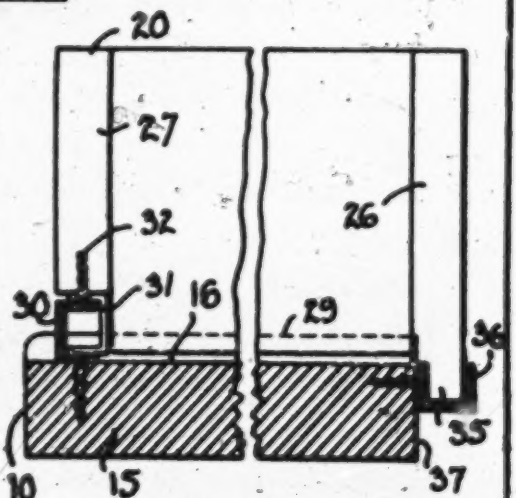

Fig. 4.

Inventor
E.D. TURNHAM.
Jesse R. Stone
Lester B. Clark
Attorneys

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237396

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Plaintiffs' Exhibit 24

DEPARTMENT OF COMMERCE
UNITED STATES PATENT OFFICE
WASHINGTON

Please find below a communication from the EXAMINER in charge of this application. August 16, 1940.

Commissioner of Patents.

Applicant: Ellis D. Turnham

Jesse R. Stone & Lester B. Clark,
2200 Gulf Bldg.,
Houston, Texas.

Ser. No. 237,396
Filed Oct. 28, 1938
For Merchandise Handler

MAILED
AUG 16 1940

Responsive to amendment of May 13, 1940.

Reference added:

Storch et al 1,494,640 May 20, 1924 186-1

Numeral 35 in Figure 1 should be properly directed. The proposed corrections to the drawings, requested by letter of May 13, 1940, are withheld in view of the improper showing of channel 36. It is believed that a careful study of Figures 1 and 4 will show that the showing of channel 36 in Figure 1 should be located on the opposite side of the counter 15.

Page 2, line 8, change "check" to checker.

Page 4, line 28, start a new sentence with "to"; line 29, change "and" to the; and line 30, change "frame" to framework.

Claim 1, line 3, cancel "a".

Claims 1, 2 and 3 are rejected as being inaccurate. The terms "enclose" and "enclosure" in reference to the pusher frame are misdescriptive, since one side of the pusher frame is open. If applicant's pusher frame formed an enclosure for the articles, then the function of the pusher on its return movement would be lost.

Claims 2 and 3 are also rejected as being unpatentable over the ordinary wrapping and cashier's counter used in self-service grocery stores. During rush periods the

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Plaintiffs' Exhibit 21

Ser. No. 237,396 - - - - - - 2

customer must frequently wait in line adjacent the wrapping counter. The customer will often place his basket containing the purchased articles on the counter, and as he approaches the cashier he slides his basket along the counter. The cashier removes the articles from the baskets, registers the individual articles, and completes the financial transaction. Another employee then wraps the articles for the convenience of the purchaser. In the above procedure, the basket constitutes an enclosure for the merchandise slidable on the surface of the counter.

Claims 7 and 8 are rejected as failing to definitely claim the invention. The Examiner is unable to ascertain with exactness the part of applicant's structure which constitutes "means whereby said frame is movable on said counter". The claims may be made allowable by expressing the above clause as — said frame being movable on said counter — .

Claim 6 as at present advised appears to be allowable.

Patent to Storch et al is of interest as showing a pusher framework 27 in relation to a delivering apparatus.

W. Brochb
acty Examiner.

Hal.

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Plaintiffs' Exhibit 24

DIV. 4

IN THE UNITED STATES PATENT OFFICE

IN RE: APPLICATION OF
ELLIS D. TURNHAM
SERIAL NO. 237,396
FILED: OCTOBER 28, 1938
FOR: MERCHANDISE HANDLER

Division 4, Room 7085.

Commissioner of Patents
Washington, D. C.

Dear Sir:

Responsive to the office communication of August 16, 1940, the applicant desires to amend as follows:

Page 2, line 8, change "check" to ---checker---.

Page 4, line 28, after the numeral "12" insert a period; change "to" to ---To---.

Line 29, change "and" to ---the---.

Line 30, change "frame" to ---framework---.

Claim 1, line 3, cancel "a".

REMARKS

It appears that Counsel is unable to understand just exactly what the Examiner has in mind insofar as correction of the drawing is concerned. Counsel expects to be in Washington the last week in February and will be glad to confer with the Examiner so as to authorize the desired corrections to the drawings. The formal corrections suggested by the Examiner have been made.

Claims 1, 2 and 3 are presented for favorable consideration because it is not thought that they are inaccurate. There is sufficient structure and function recited in the claims to justify the use of the word "enclosure" without creating the impression that the merchandise is, as a matter of fact, entirely enclosed. As a matter of fact, the claims recite that the merchandise is to be

placed upon the counter and that it is an open bottom enclosure for the merchandise thus placed on the counter. It is thought that the Examiner takes too comprehensive a view of the term "enclosure" and reconsideration of the claim is asked.

Claims 2 and 3 are presented for reconsideration over the rejection that they could be anticipated by the use of a basket in the usual type of cash-and-carry grocery.

Each of these claims calls for a portion of a counter which is to receive the merchandise. It is evident from these claims that the merchandise is to be moved on the counter and not in a container such as a basket. Reconsideration of this rejection is asked.

Claims 7 and 8 have been amended in accordance with the suggestion of the Examiner and are now believed to be in condition for allowance.

Favorable reconsideration of the application is asked.

Respectfully submitted,

Lester B Clark

Counsel for Applicant.

-2-

Plaintiffs' Exhibit 24

Div. 4 Room 7085 HOS:EB Paper No. 10

Address only "The Commissioner of Patents, Washington, D. C." and not any official by name

All communications respecting this application should give the serial number date of filing, and name of the applicant

DEPARTMENT OF COMMERCE
UNITED STATES PATENT OFFICE
WASHINGTON

Please find below a communication from the EXAMINER in charge of this application

March 27, 1941.

Commissioner of Patents.

Applicant Ellis D. Turnham

Ser. No. 237,396
Filed Oct. 28, 1938
For Merchandise Handler

Jesse R. Stone & Lester B. Clark,
2200 Gulf Bldg.,
Houston, Texas.

MAR 27 1941

In accordance with the provisions of Order No. 2308, dated March 12, 1947, which reads in part as follows:

> • • • • • • •
>
> Obvious informalities in the application may be corrected by the examiner, but said correction must be in the form of an amendment, approved by the Principal Examiner in writing, placed in the file, and made a part of the record. The changes specified in the amendment will be entered by the clerk in the regular way.
>
> • • • • • • • •

the changes, hereinafter specified, are made by the examiner in the application above identified.

Should these changes not be satisfactory to the applicant, appropriate amendment may be proposed under the provisions of Rule 78, provided the specification has not been printed.

The application has been amended as follows:

Page 6, line 18, the spelling of "uneasy" has been corrected.

Claim 2, line 4, "to" has been inserted before "enclose".

C. E. Izzmelly
Examiner.

Plaintiffs Exhibit 21

Div. 4, Rm. 7085 HCS:EB

ADDRESS ONLY
THE COMMISSIONER OF PATENTS
WASHINGTON, D. C.

Serial No. 237,396

DEPARTMENT OF COMMERCE
UNITED STATES PATENT OFFICE
WASHINGTON

MAR 27 1941

March twenty-seven, 1941.

Ellis D. Turnham, Assor.

Your APPLICATION for a patent for an IMPROVEMENT in Merchandise Handler, filed Oct. 28, 1938 has been examined and ALLOWED with 6 claims.

The final fee, THIRTY DOLLARS ($30), WITH ONE DOLLAR ($1) ADDITIONAL FOR EACH CLAIM ALLOWED IN EXCESS OF 20, must be paid not later than 6 MONTHS from the date of this present notice of allowance. If the final fee be not paid within that period, the patent will be withheld; SEE REVISED STATUTES, SECTION 4885 AS AMENDED BY ACT OF CONGRESS APPROVED AUGUST 9, 1939.

The office delivers patents upon the day of their date, on which date their term begins to run. The preparation of the patent for final signing and sealing will require about 4 weeks, and such work will not be begun until after payment of the necessary final fee.

When the final fee is paid, there should also be sent, DISTINCTLY AND PLAINLY WRITTEN, the name of the INVENTOR, TITLE OF THE INVENTION, AND SERIAL NUMBER AS ABOVE GIVEN, DATE OF ALLOWANCE (which is the date of this circular), DATE OF FILING, and, if assigned, the NAMES OF THE ASSIGNEES.

If it is desired to have the patent issue to an ASSIGNEE OR ASSIGNEES, an assignment containing a REQUEST to that effect, together with the FEE for recording the same, must be filed in this office on or before the date of payment of the final fee.

After issue of the patent, uncertified copies of the drawings and specifications may be purchased at the price of TEN CENTS EACH. The money should accompany the order. Postage stamps will not be received.

The final fee will NOT be received from other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office.

NOTICE.—WHEN THE NUMBER OF CLAIMS ALLOWED IS IN EXCESS OF 20, NO SUM LESS THAN THIRTY DOLLARS ($30) PLUS ONE DOLLAR ($1) ADDITIONAL FOR EACH CLAIM IN EXCESS OF 20 CAN BE ACCEPTED AS THE FINAL FEE.

Respectfully,

THIS APPLICATION CANNOT BE RENEWED

Commissioner of Patents.

Jesse R. Stone & Lester B. Clark,
2200 Gulf Bldg.,
Houston, Texas.

27 37886

IN REMITTING THE FINAL FEE GIVE THE SERIAL NUMBER AT THE HEAD OF THIS NOTICE

UNCERTIFIED CHECKS WILL NOT BE ACCEPTED

Plaintiffs' Exhibit 24

FRANK ANDREWS
(DECD. 1936)
ROBERT H. KELLEY
H. C. KURTH
ROBERT P. CAMPBELL
PALMER BRADLEY
W. ST. JOHN BARWOOD
RICHARD F. BURNS
J. L. LOCKETT
W. H. STREETMAN
THOMAS A. CLARK
HARRY O. JONES
J. R. ANDREWS
HOMER S. HARDY
LESTER B. CLARK
F. L. ANDREWS
J. L. LOCKETT, JR.
T. D. ANDERSON
RAY L. SMITH
JOHN C. GOBS
RAYMOND A. GOBS
A. D. COLSTON
LEON M. PAYNE

ANDREWS, KELLEY, KURTH & CAMPBELL
ATTORNEYS
GULF BUILDING
HOUSTON, TEXAS

APR 19 41 191652 ~HCheck— 30.00

April 16, 1941

APR 18 1941

Re: Application of
Ellis D. Turnham,
Serial No. 237,396
Filed: October 28, 1938
For: Merchandise Handler

Div. 4, Room 7088
Allowed March 27,1941

Commissioner of Patents,
Washington, D. C.

Dear Sir:

Enclosed herewith is our check in the amount of $30.00 to cover the final fee in the above identified application for patent.

Yours very truly,

Lester B Clark

31--

Plaintiffs' Exhibit 24

367

May 20, 1941. E. D. TURNHAM 2,242,408

MERCHANDISE HANDLER

Filed Oct. 28, 1938

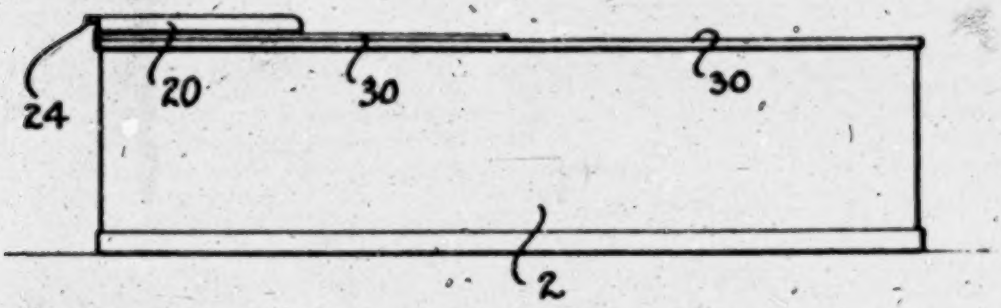

Fig. 2.

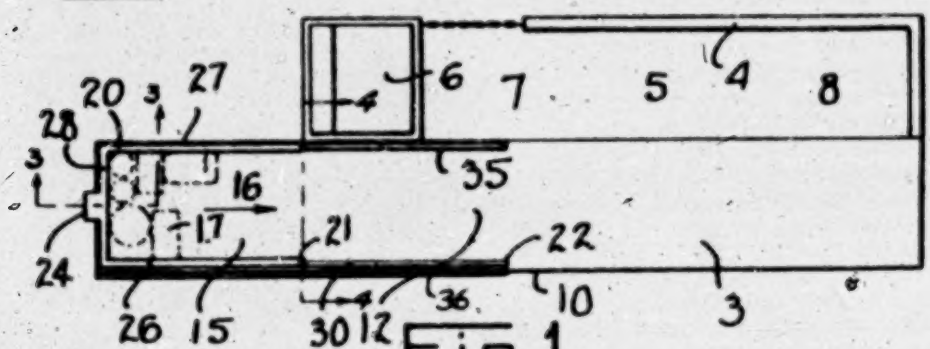

Fig. 1.

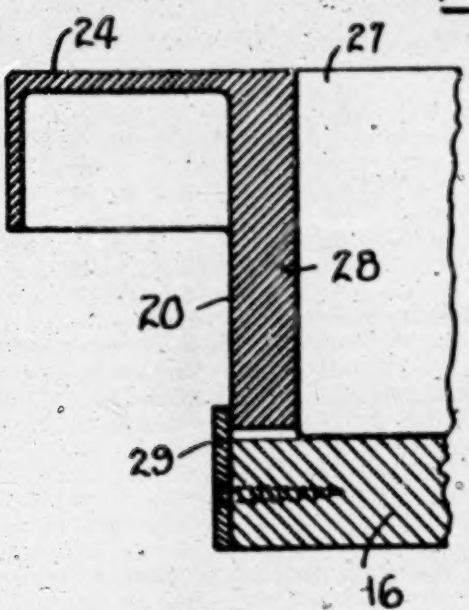

Fig. 3.

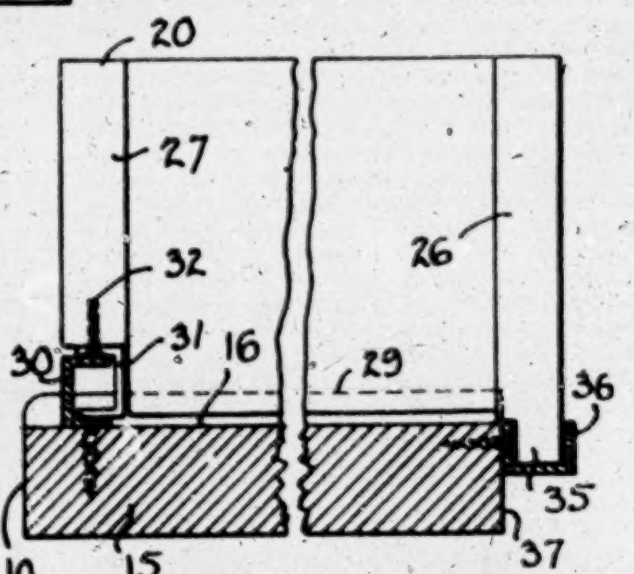

Fig. 4.

Inventor
E. D. TURNHAM.
Jesse R. Stone
Lester B. Clark
Attorneys.

421

Patented May 20, 1941 2,242,408

UNITED STATES PATENT OFFICE

2,242,408

MERCHANDISE HANDLER

Ellis D. Turnham, Houston, Tex., assignor to Joe Weingarten, Houston, Tex.

Application October 28, 1938, Serial No. 237,396

6 Claims. (Cl. 186—1)

The invention relates to a device for assisting in the handling of merchandise at the checker or cashier's station or stand in grocery stores and the like.

In cash and carry stores it is the practice for the customer to gather up the goods or articles which have been selected and to approach the cashier's stand usually carrying the articles in a basket. It is necessary for the customer to stand in line and eventually his heavy basket of articles is deposited on the counter in front of the checker. It is then necessary for the checker to pick out the articles from the basket to record them individually on the register and sort them as they are picked out of the basket in order to group together the various articles. Many times where two or three cans or objects of the same type of article are sold for a lump sum, such as three cans for twenty-five cents, the checker must hunt through the entire basket of goods to pick out these several similar cans or articles. As a consequence thereof considerable delay is encountered at the checker's stand due to the fact that the checker must perform all of these operations while recording the price of the goods on the register. The result has been that in larger stores a great number of checkers have been required and each checker must be provided with a register. Registers of this type cost several hundred dollars and as a result the store owner has been put to considerable investment in registers and considerable expense in maintaining an excessive number of checkers in order to prevent delay and dissatisfaction on the part of the customers.

It is one of the objects of the present invention to simplify and reduce the acts which must be performed by the checker and sort the articles and arrange them in a manner whereby they can be conveniently checked.

Another object of the invention is to provide a frame work for a checker counter whereby the goods of each customer can be grouped together and moved to a position convenient to the checker to be recorded.

Another object of the invention is to provide a pusher stand for checker counters in grocery stores.

Another object of the invention is to sort the articles of a customer and arrange them together so that the customer may observe the absence of some items and may at the same time estimate the total cost thereof so as to save the time of the checker when the purchases are being recorded.

Another object of the invention is to provide a checker stand so that it will accommodate a pusher, a checker and a sacker each of whom may perform specific acts in order to facilitate the registering and disposing of a customer in an efficient manner.

Still another object of the invention is to provide a frame whereby the goods of a customer may be grouped together and moved along the counter as a unit.

Other and further objects of the invention will be readily apparent when the following description is considered in connection with the accompanying drawing:

Fig. 1 is a top plan view looking down upon a counter which has been equipped with the invention.

Fig. 2 is a side elevation of the counter of Fig. 1.

Figs. 3 and 4 are sections taken on the lines 3—3 and 4—4 respectively of Fig. 1.

In Fig. 2 the cashier or checker's counter is indicated generally at 2 and as seen in Fig. 1 is an elongated counter having a top 3 thereon. It is usual that a guard rail or fence 4 be positioned adjacent the rear of the counter so as to provide a space 5 as seen in Fig. 1. The cash register or recording register 6 is usually positioned as seen in Fig. 1 closely adjacent the location where the checker will stand. This location is indicated at 7. While at the opposite end of the area 5 as at 8 will be the position of the person who picks up the articles and places them in sacks or bags to be handed to the customer. The customer passes along the front edge 10 of the counter. The construction thus far described is that usually employed in checker stands or counters of this type and as previously noted the customer at the present time approaches the area 12 and places a basket in position on top of the counter, whereupon the checker removes the goods from the basket and records them on the register 6. A sacker picks up the articles and places them in the sack. This arrangement, however, has been found unsatisfactory for it is necessary for the customers to line up to the left of the position 12, each customer carrying a heavy basket of goods.

The present invention contemplates the provision of an extension on the counter such as seen at 15 in Fig. 1. This extension may be of the same width as the top 3 of the counter 2 and may be of any desired length. This extension 15 is provided with top 16 upon which the various articles 17 are deposited either by the customer or by what will be known hereinafter as

pusher boy. In many of the stores small wagons or carriages are provided upon which one or two baskets may be deposited and these carriages are wheeled around by the customer while he is selecting the various articles which he desires to purchase. In any event the customer approaches the cashier's extension or stand 15 with the basket and the pusher boy quickly removes the articles 17 from the basket and deposits them on the top 16. A particular advantage of this arrangement is that in the majority of instances each of the articles 17 has a price marked thereon and the pusher boy in depositing them on the counter will arrange the goods with the prices uppermost or exposed so that they can be conveniently observed by the checker. Another function of the pusher boy is to sort the goods and where several articles are being sold for a lump price these several articles can be grouped together so that the checker may observe that this group of articles have been purchased for the lump sum price.

When the pusher boy has deposited the articles as seen in Fig. 1 in position on the counter, they are then ready to be moved along the top of the counter to the cashier's stand as at 12. To accomplish the movement of all the articles 17 as a unit the framework 20 has been slidably positioned on the top 16 of the extension 15 and this framework is arranged to be moved to the right as viewed in Fig. 1 so that the ends 21 thereof can move forwardly such as at 22. This frame 20 has a handle 23 thereon which may be grasped by the pusher boy in order to move it or the frame may be grasped directly.

As seen in Fig. 1 the framework is several inches in height and is of a U-shape having a front side bar 26 and a rear side bar 27 which are joined by the end bar 28. In this manner the group of articles 17 are enclosed by the framework and as the frame is pushed along the top of the counter, the group of goods are compelled to slide with the framework so that they are advanced to a position convenient to the checker.

In Figs. 3 and 4 the bar construction of the framework has been illustrated wherein the side bars are slidable on the top of the counter 16 and if desired a stop plate 29 may be affixed to the end of the counter so that the end bar 28 will abut against it to prevent the frame from moving off from the end of the counter. This construction is seen in Fig. 3.

Fig. 4 shows the arrangement of the side bars 27 and 26 in order to anchor the frame on the top of the counter 16. This arrangement includes a channel member 30 which is anchored to the top 16 of the counter and fits an interfitting channel member 31 therein which is fixed to the side bar 27 by bolts or screws 32. In this manner the framework 20 cannot be elevated beyond the height of the channel 30 because of the arrangement of the interfitting legs of the channels 30 and 31. Thus the frame cannot be inadvertently pushed out of position. In order to guide the frame in its sliding movement the side bar 26 has a base 35 thereon which fits in a channel 36 fixed on the rear edge 37 of the top 16. This base or edge 35 guides the frame in its sliding movement as it travels along the channel 36. It will be noted that the channel 30 is disposed inwardly a short distance from the edge 16 of the counter as seen in Figs. 1 and 4 so that its sliding movement will not strike a customer who might be leaning against the edge of the counter.

In operation the pusher boy takes the goods from the customer, deposits them on the counter 16 within the frame 20, sorting the goods and arranging them in a manner so that they can be conveniently checked by the cashier. When the cashier has disposed of the previous customer, the pusher boy then moves the framework 20 to the right as viewed in Fig. 1 so as to push all of the customer's articles up to the cashier as a unit or in a group together. The frame is then withdrawn and the pusher boy proceeds to deposit the next customer's goods within the frame. The checker meanwhile can record on the register 8 the prices of all of the goods and the sacker then picks up the goods as they are recorded and places them in bags or sacks for the customer. The customer is satisfied because he has been immediately relieved of the articles which he has selected, goods have been placed conveniently before him so that he may observe any errors and roughly estimate the general cost. The prices are all displayed conveniently for him and he does not feel uneasy due to the fact that the goods are not properly grouped or that someone else's articles have been included with those of his own selection.

In actual practice the provision of this arrangement has substantially reduced the time per customer for checking the goods purchased and has resulted in a substantial reduction in the number of registers required and the number of checkers which are necessary to take care of a given number of customers.

What is claimed is:

1. The combination with a cashier's counter of an extension thereon, a top on said extension to receive merchanise, and an open bottom enclosure movable relatively to the extension and counter to slide the merchandise along the said top and extension to a position on said counter.

2. A cashier's counter in a cash and carry type of grocery, a cashier station, a portion on the counter to receive the merchandise being purchased, and means slidable on the surface of the counter to enclose and move such merchandise to the cashier station.

3. In a cash and carry type of cashier's counter, a register on the counter, a cashier station, a portion on the counter to receive the merchandise being purchased, and means to enclose such merchandise on the surface of the counter and to move with such merchandise to the cashier station, so that all the articles of merchandise of a customer will be positioned together.

4. A checker's stand including a counter of the character described, an open bottom pusher frame thereon, means to guide said frame in sliding movement so that goods placed on the end of said counter within said frame may be pushed along the counter in a group to a position adjacent the checker by movement of said frame.

5. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless three sided frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier.

6. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the

cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier, said frame being open at the end adjacent the cashier's stand and readily movable to be returned over said portion so as to receive the merchandise of another customer while the cashier is occupied with the previous group.

ELLIS D. TURNHAM.

Plaintiffs' Exhibit 21 371

District Court of the United States

Eastern DISTRICT OF Michigan-Southern Division

HONORABLE COMMISSIONER OF PATENTS,
Washington, D. C.

SIR:

In compliance with the Act of February 18, 1922 (42 Stat. L. 392), you are advised that there was filed on the 21st day of December, 1945, in this court an action, suit, or proceeding No. Civil 5430, entitled:

Name Herbert N. Bradley and Joe Weingarten, Plaintiff,
Address Route No.1, Jerome, Michigan 808 Prairie Ave., Houston, Texas

versus

Name The Great Atlantic & Pacific Tea Company, Defendant,
Address State of Michigan

brought upon the following patents:

	PATENT NO.	DATE OF PATENT	PATENTEE
1	2,242,408	May 20, 1941	Ellis D. Turnham, assigned to Joe Weingarten
2			
3			
4			
5			

In the above-entitled case, on the ..... day of ....., 193 , the following patents have been included by ..... (insert amendment, answer, cross bill, or other pleading):

	PATENT NO.	DATE OF PATENT	PATENTEE
1			
2			
3			
4			
5			

In the above-entitled case the following decision has been rendered or decree issued:

IN WITNESS WHEREOF I have affixed my hand this 21st day of December, 1945, at Detroit, Michigan.

George W. Read
Clerk of said Court.

John J. Ginther
Deputy Clerk

372

Plaintiffs' Exhibit 24

11/7/38

~~1938~~
~~1935~~

CONTENTS

1.	*Application papers.*	26.	
2.	Print. NOV 2 - 1938	27.	
3.	Rej. FEB 8 - 1939	28.	
4.	Amendment JUL 29 1939	29.	
5.	Rej. NOV 1 - 1939	30.	
6.	Amendment MAY 23	31.	
7.	MAY 13	32.	
8.	Rejection AUG 26 1940	33.	
9.	FEB 10 1941	34.	
10.	~~Examiner's Amendment~~ MAR 27 1941	35.	
11.	Notice of Allowance Dec. 28-1945	36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
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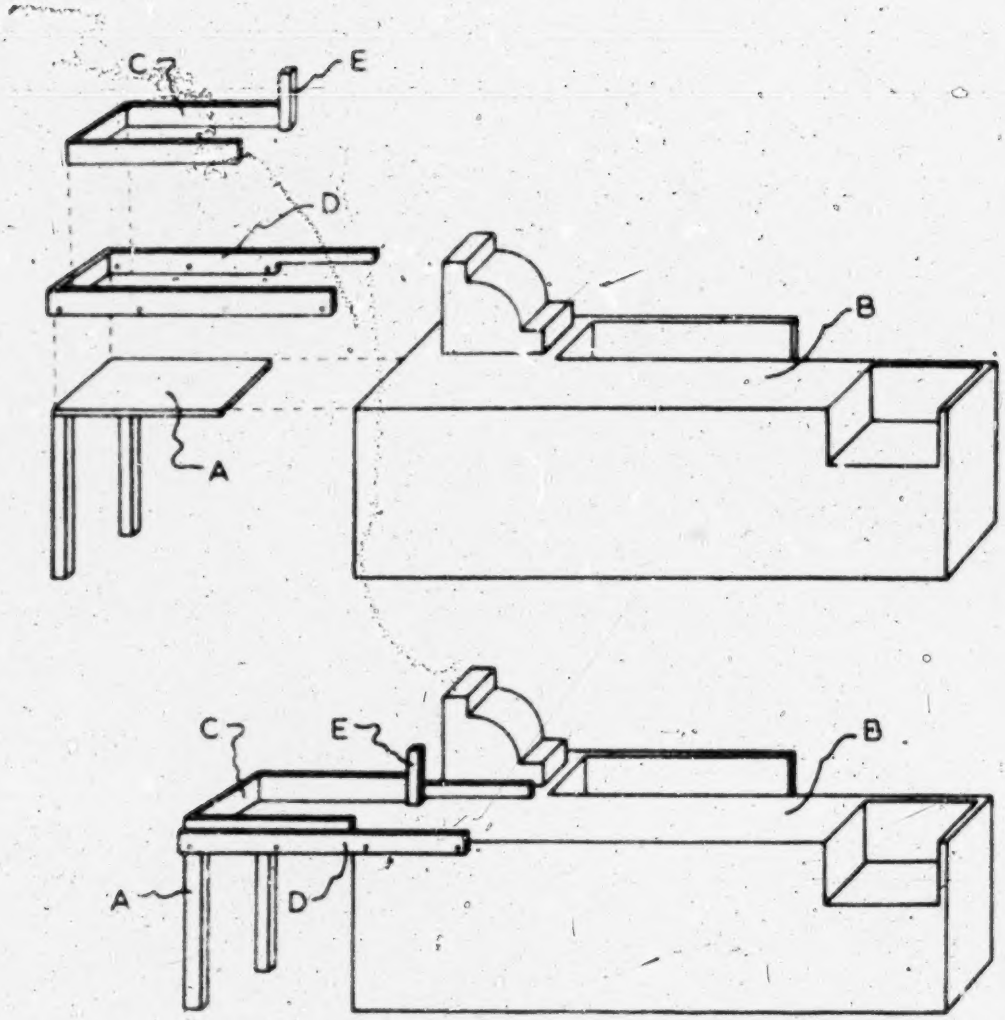
U. S. GOVERNMENT PRINTING OFFICE 1936 16—11000

(Here follows 1 Photolithograph, side folio 429)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6. A cashier's counter for cash and carry type of grocery comprising a portion (A) spaced from the cashier's stand (B) and upon which the merchandise may be deposited and arranged, a bottomless frame (C) on said portion (A) and within which the merchandise is deposited and arranged, means (D & E) whereby said frame (C) is movable on said counter from said portion (A) to a position adjacent the cashier's stand (B) so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier, said frame (C) being open at the end adjacent the cashier's stand (B) and readily movable to be returned over said portion (A) so as to receive the merchandise of another customer while the cashier is occupied with the previous group.

Plaintiff's Exhibit 25.

324A

[fol. 430] Plaintiffs' Exhibit 26

Chart

Plaintiffs' Exhibit 26.

376A

THE APPLICATION OF THE CITED PRIOR ART TO CLAIMS 1 THROUGH 9 OF U.S. PATENT NO. 2,242,408

		CITED BY THE PATENT OFFICE	CITED BY DEFENDANT	MEANS TO SERVICE MACHINE BY CHECKING OF ARTICLES DISCHARGED FROM CHECKING POSITION ON COUNTER SPACED FOR LOADING AND PRE-SORTING	RETENTION ON COUNTER SPACED FROM CHECKING POSITION FOR LOADING AND PRE-SORTING	THREE-SIDED SOFTGOODS PUSHER	THREE ARMS FOR PUSHER	OPERATING HANDLE ON PUSHER	ARTICLES MOVED BY PUSHER	CONVEYING MEANS RECIPROCATED TO RETRACE PATH OF INITIAL MOVEMENT	ARTICLES DEPOSITED, CONVEYED, UNLOADED ON SAME SURFACE ADJACENT CHECKING POSITION	SELF-UNLOADING BY ACT OF REVERSAL OF MOVEMENT TO RETURN TO ORIGINAL POSITION
GROVES	379,780		X							✓		
KNUDSEN	577,686		X									
MARSH	794,809	X								✓		
DICKINSON	1,115,911		X			✓	✓	✓	✓			
YESTON	1,170,790		X	✓								
HAGAR	1,233,775	X	X							✓		✓
DA ROZA	1,243,794		X	✓								
TURNER	1,343,801		X	✓								
McCARTY	1,348,024		X	✓								
HARVEY	1,350,996	X	X	✓								
SAUNDERS	1,357,521		X	✓								
DANDRIDGE	1,380,886		X							✓		
GREENBERG	1,384,191		X									
SPINK ET AL	1,388,975		X									
DIEHL ER	1,450,434		X									
STEVENSON	1,494,330		X	✓								
STIRCH ET AL	1,494,640	X	X			✓		✓	✓	✓	✓	✓
BUSH	1,558,274		X						✓			
MARDIS	1,654,692		X						✓			
MORSA	1,700,441		X			✓		✓	✓			✓
BUTLER	1,701,987		X			✓		✓	✓			
ARNOLD	1,706,407		X			✓	✓	✓	✓			
VARNUM	1,749,494		X		✓			✓				
WALKER	1,784,103		X									
ANDERSON	1,788,799		X	✓								
MYERS	1,832,410		X									
RORRER ET AL	1,870,894		X	✓								
CICERILL ET AL	1,894,851		X									
BRASHEAR	1,898,421		X									
POLTERS	1,953,900		X							✓		
ROHRER ET AL	1,987,797	X	X									
EKEDAHL ET AL	2,091,355		X									
CLERC	2,096,959		X	✓								
TURNHAM	2,242,408			✓	✓	✓	✓	✓	✓	✓	✓	✓
BRADLEY	2,317,438			✓	✓							

[fol. 432] **Defendant's Exhibits**

Defendant's Exhibit A

Wooden stick for use on counter

(Physical)

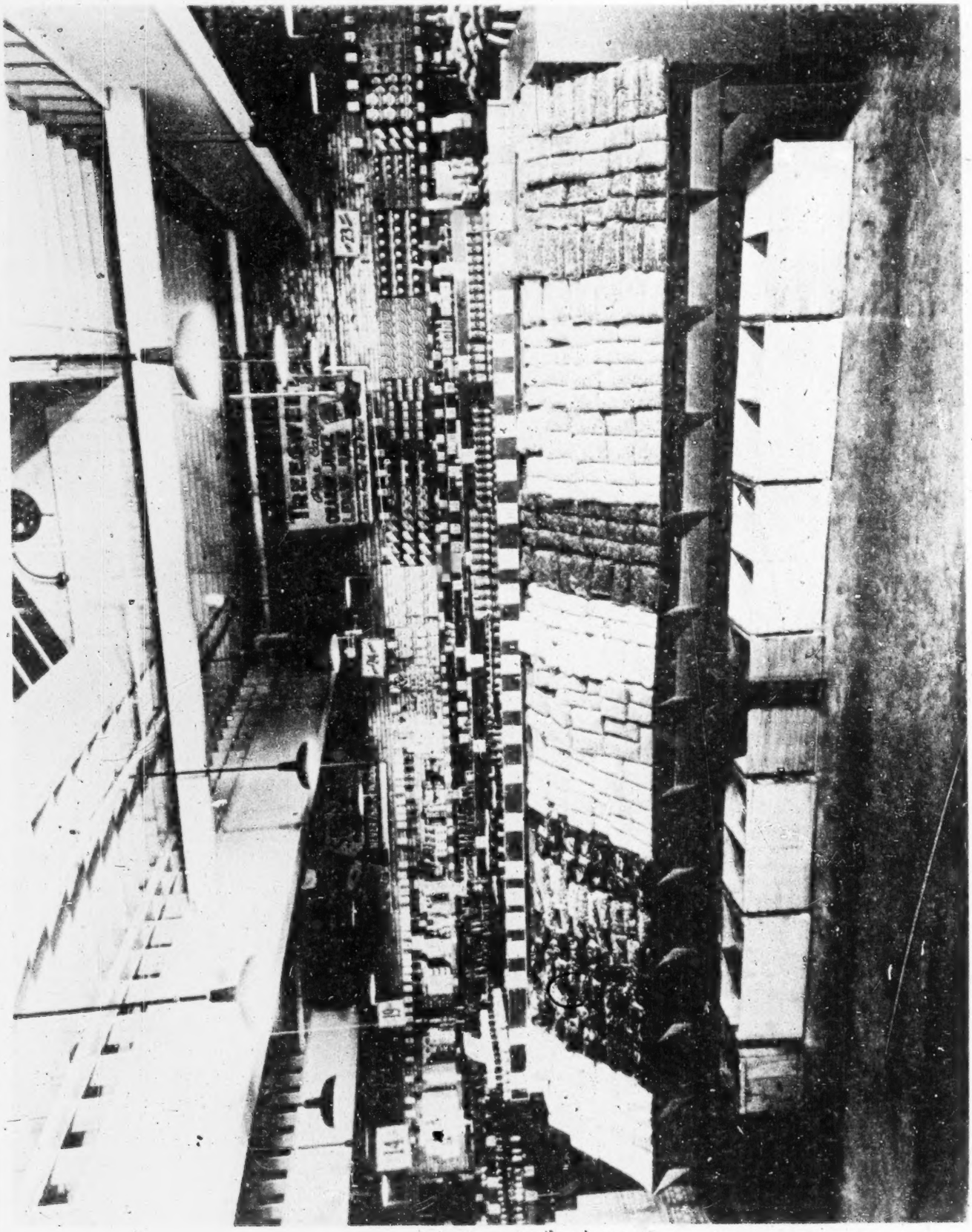
Defendant's Exhibit B

Wooden stick for use on counter

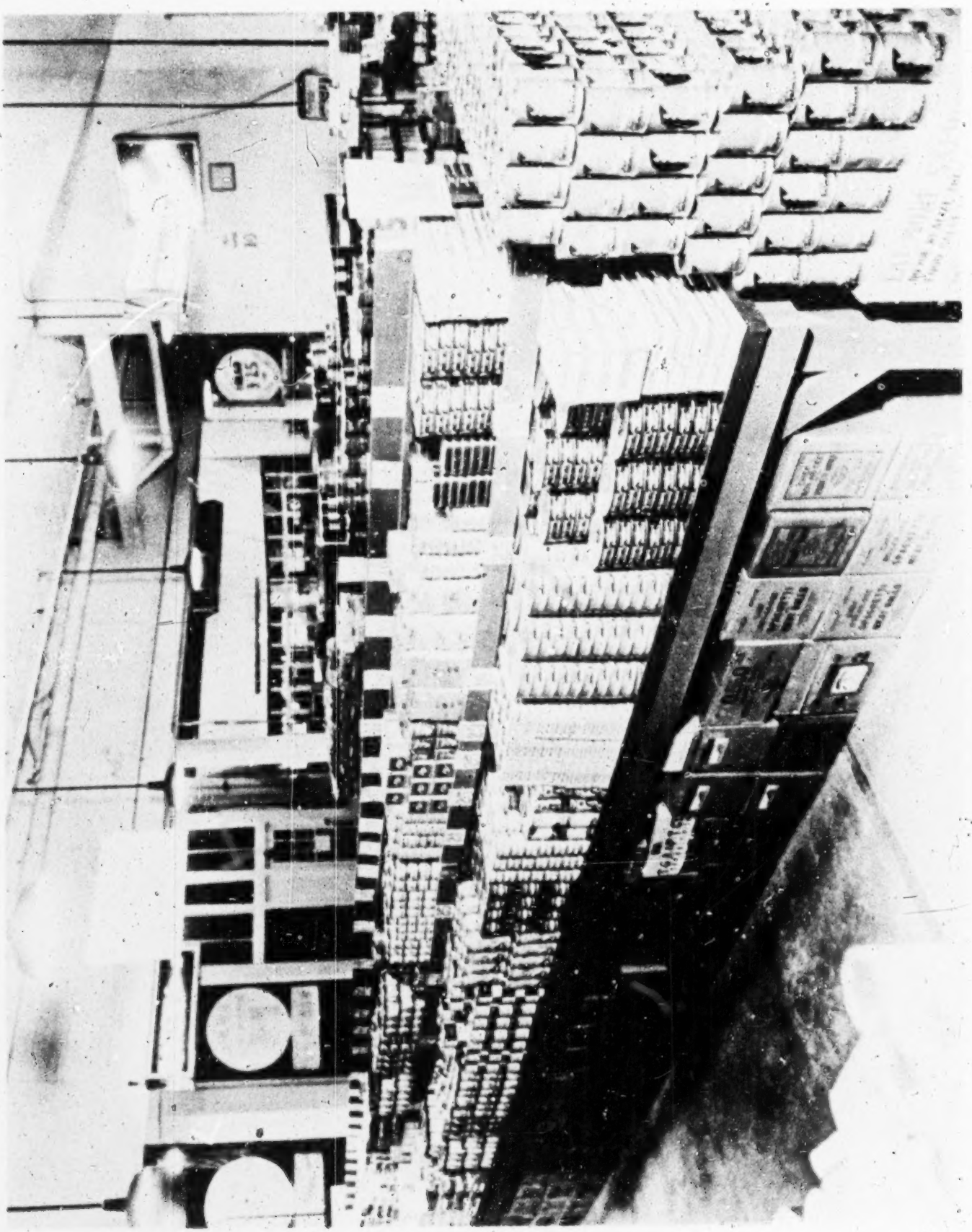
(Physical)

Defendant's Exhibits C-1 to C-8, Inclusive

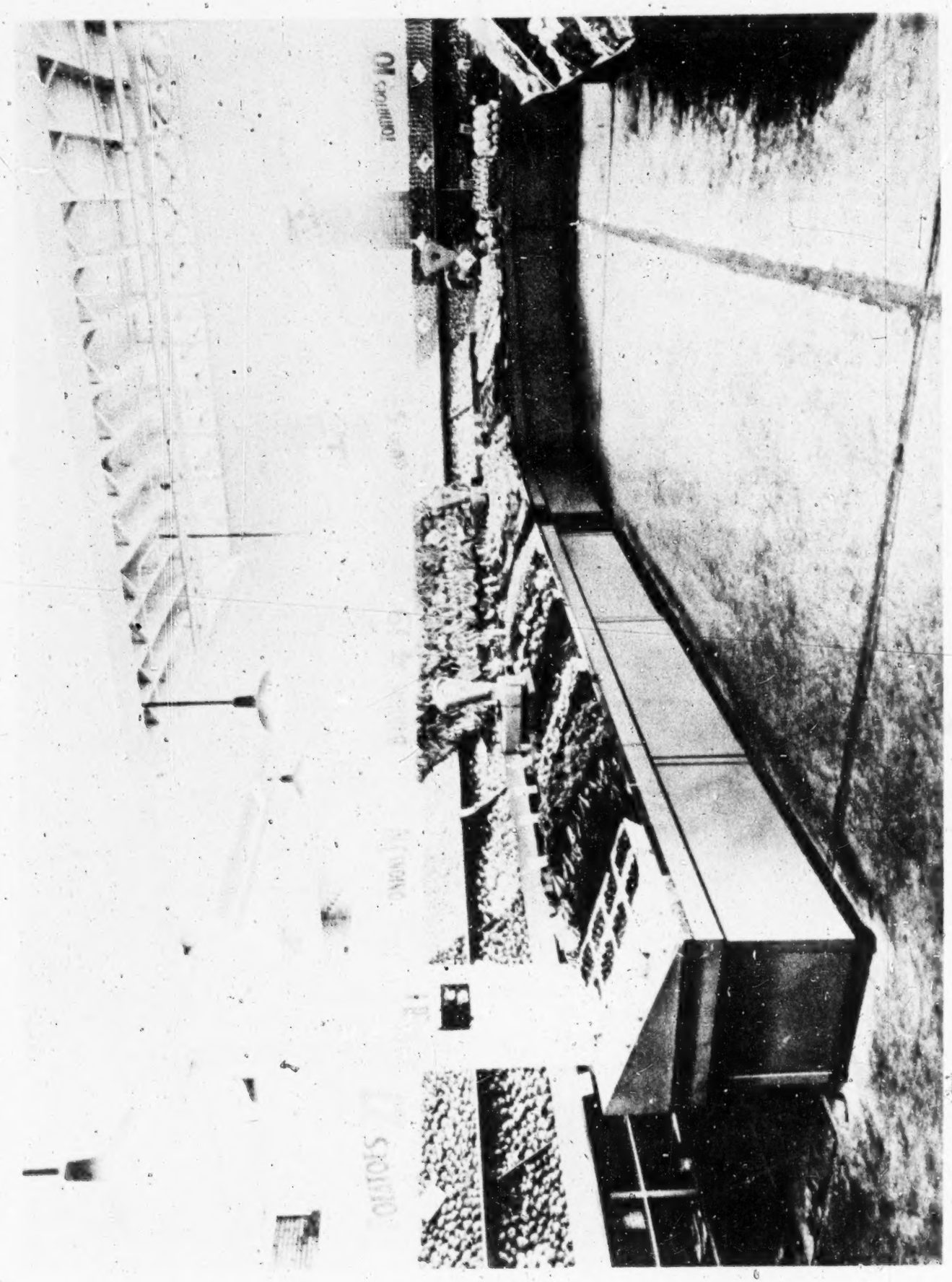
Photographs



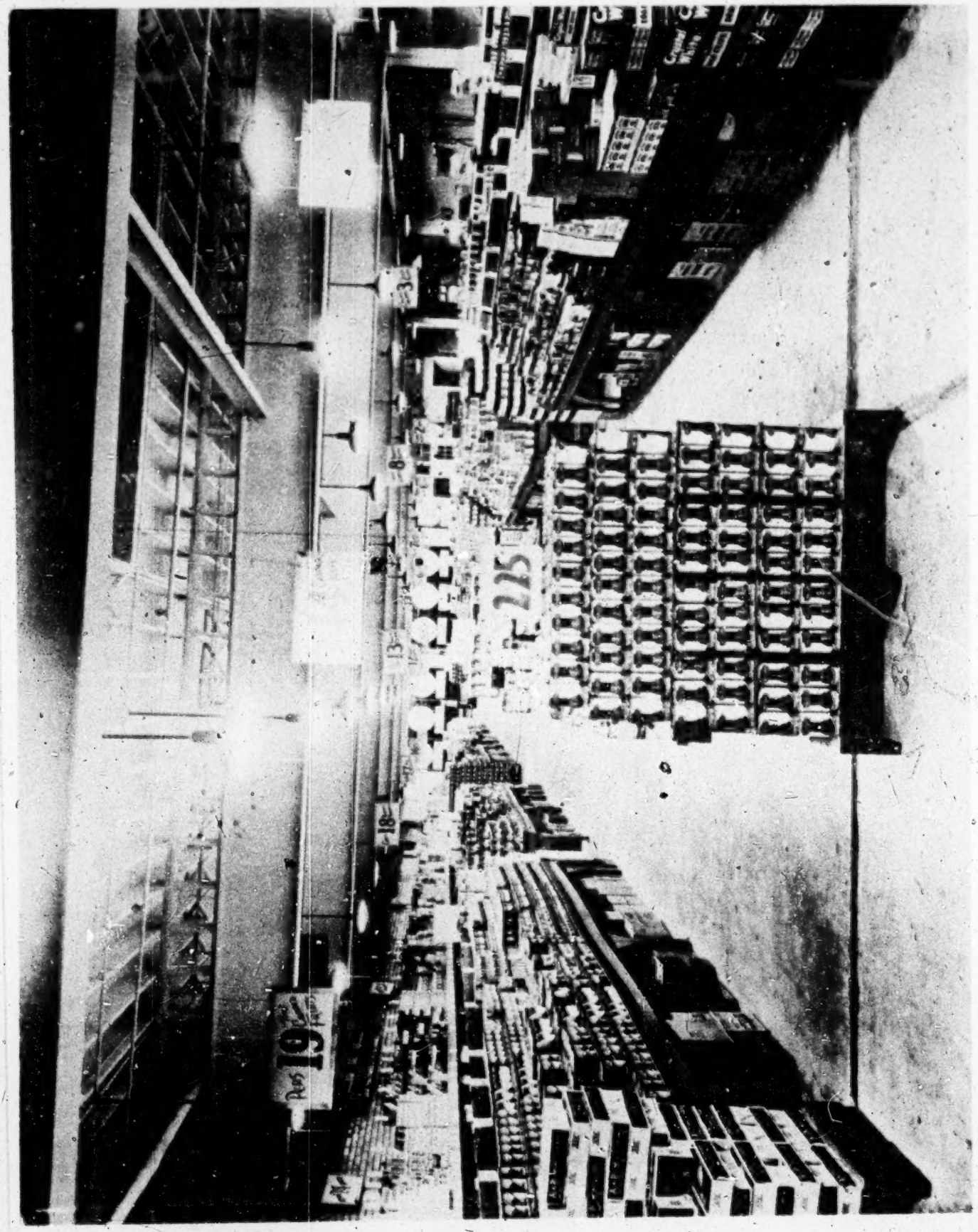
Defendant's Exhibit C-2.

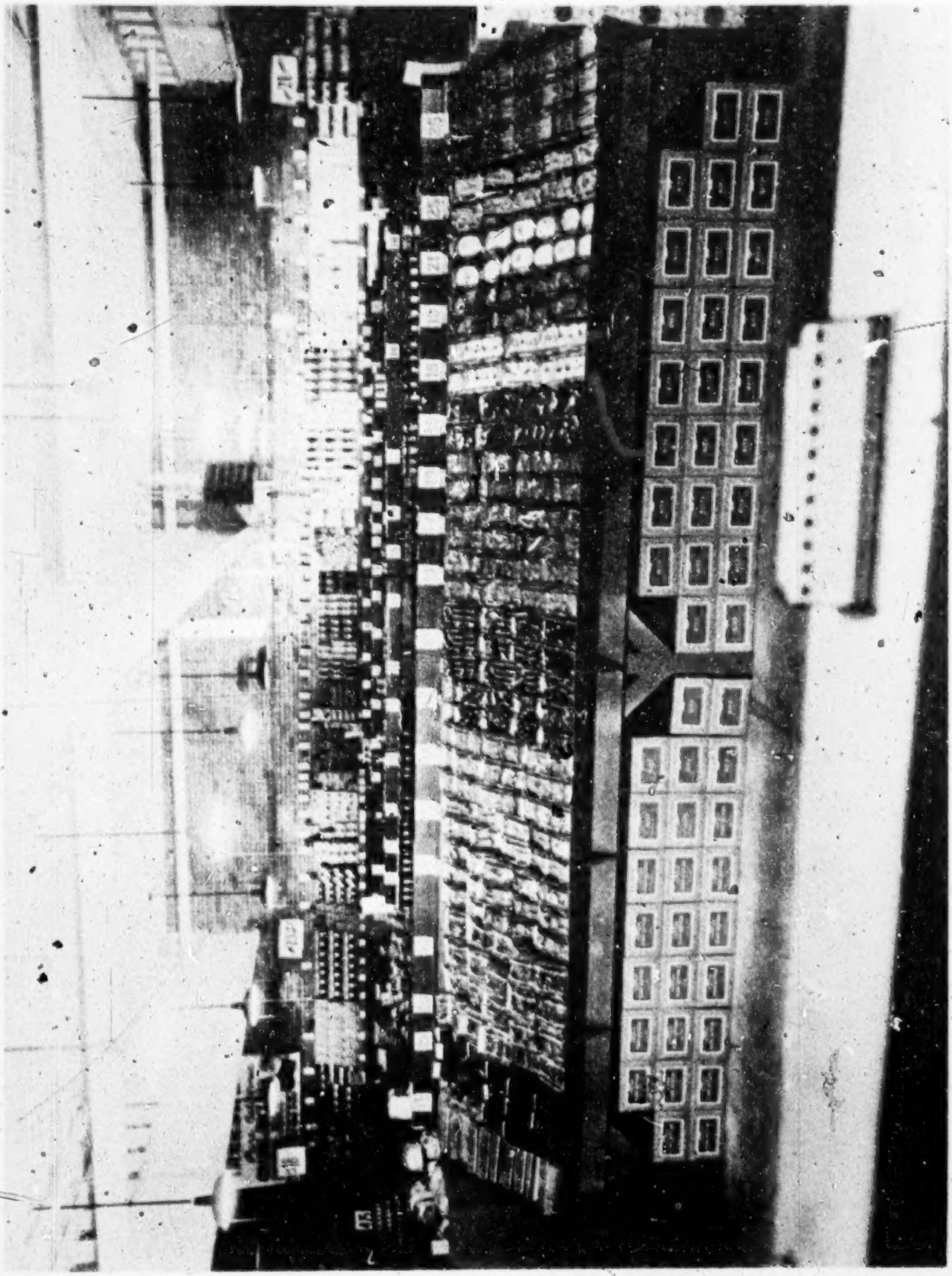


Defendant's Exhibit C3.

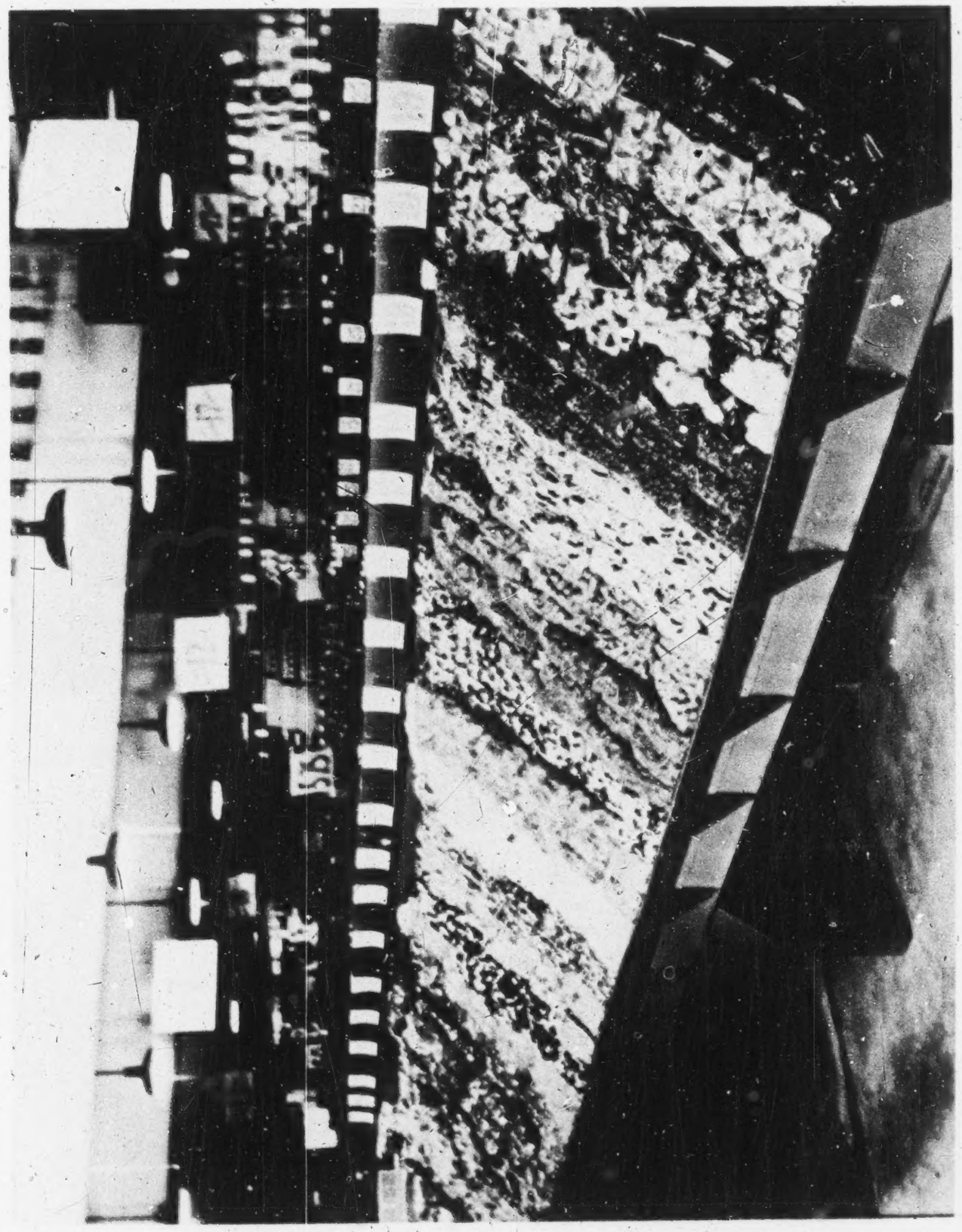


Defendant's Exhibit C-1.

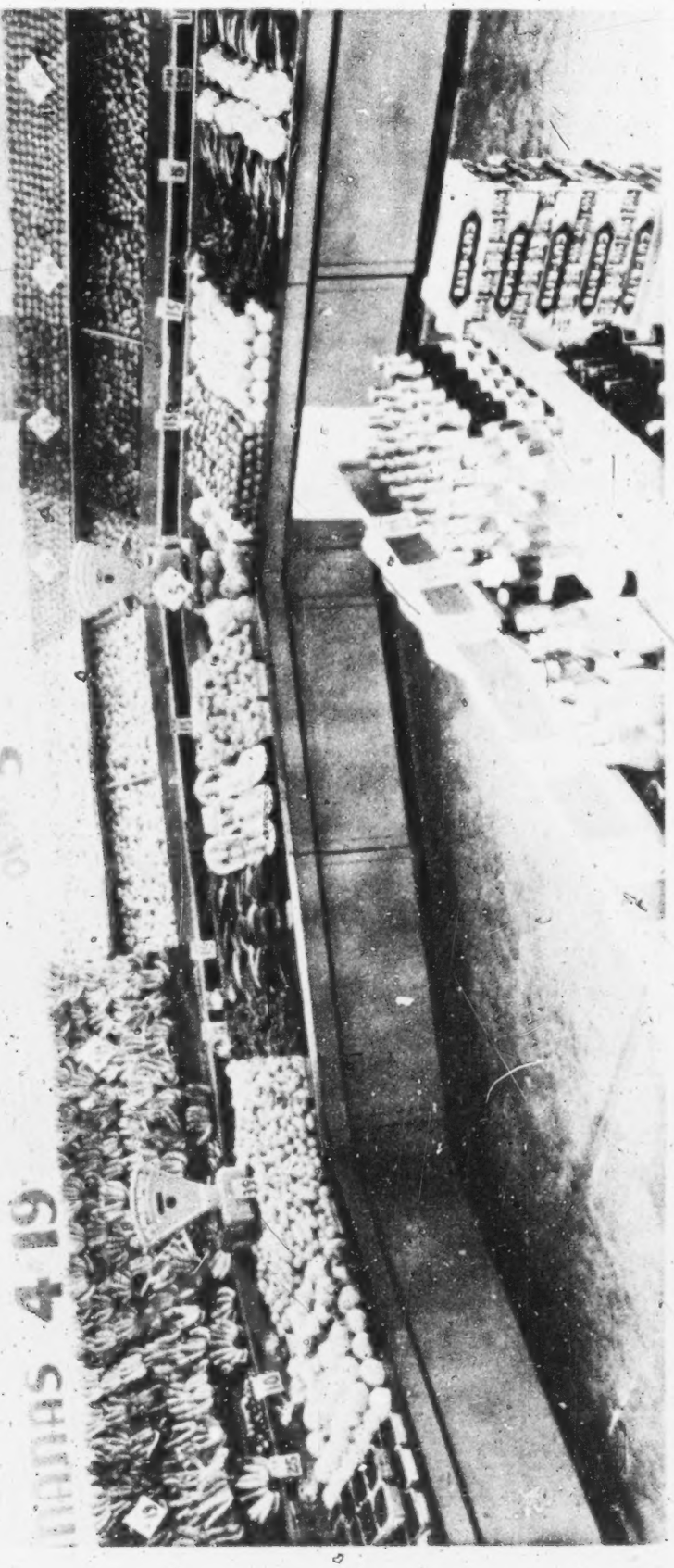




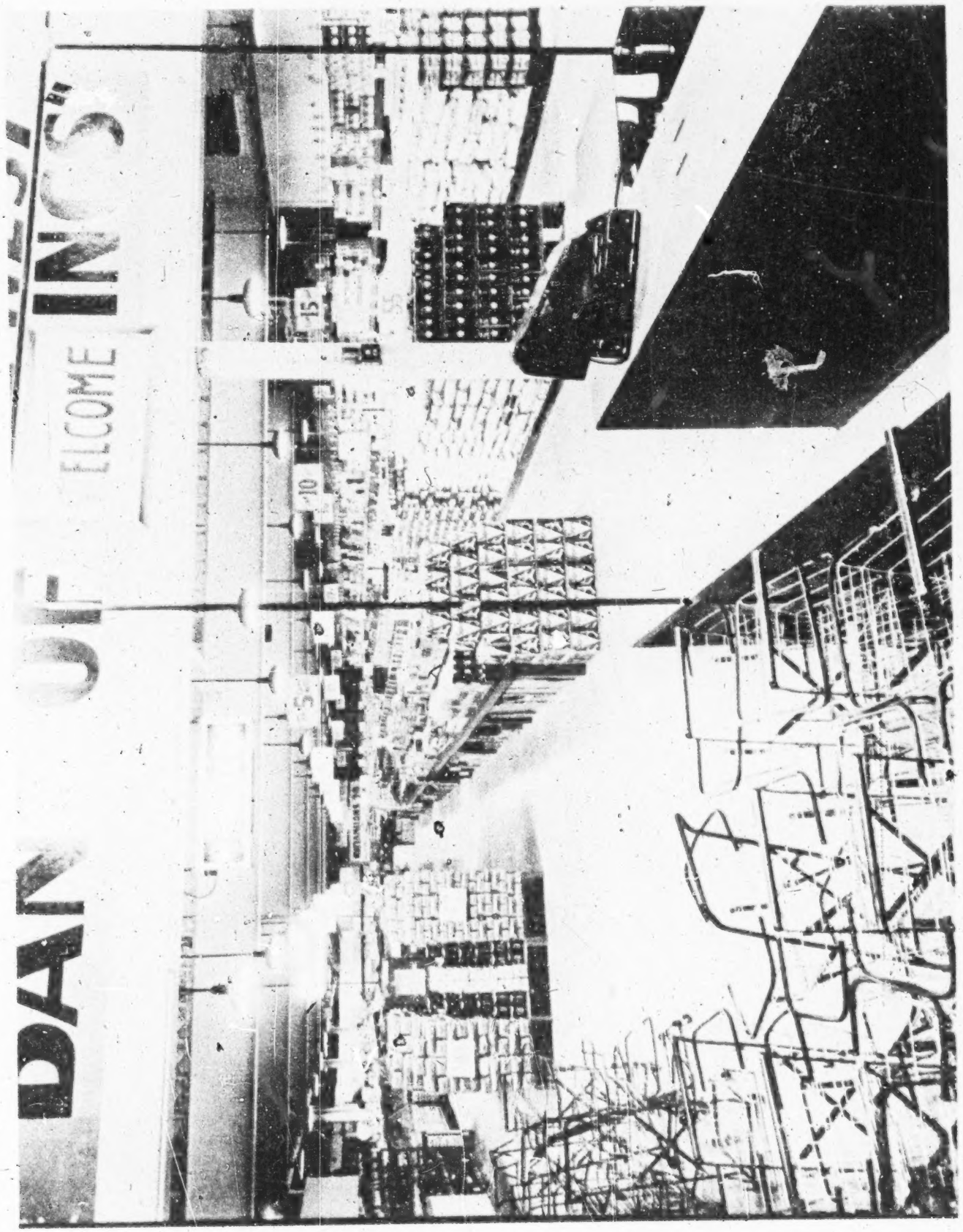
Defendant's Exhibit C-6.



Defendant's Exhibit C-7.



Defendant's Exhibit C-8.



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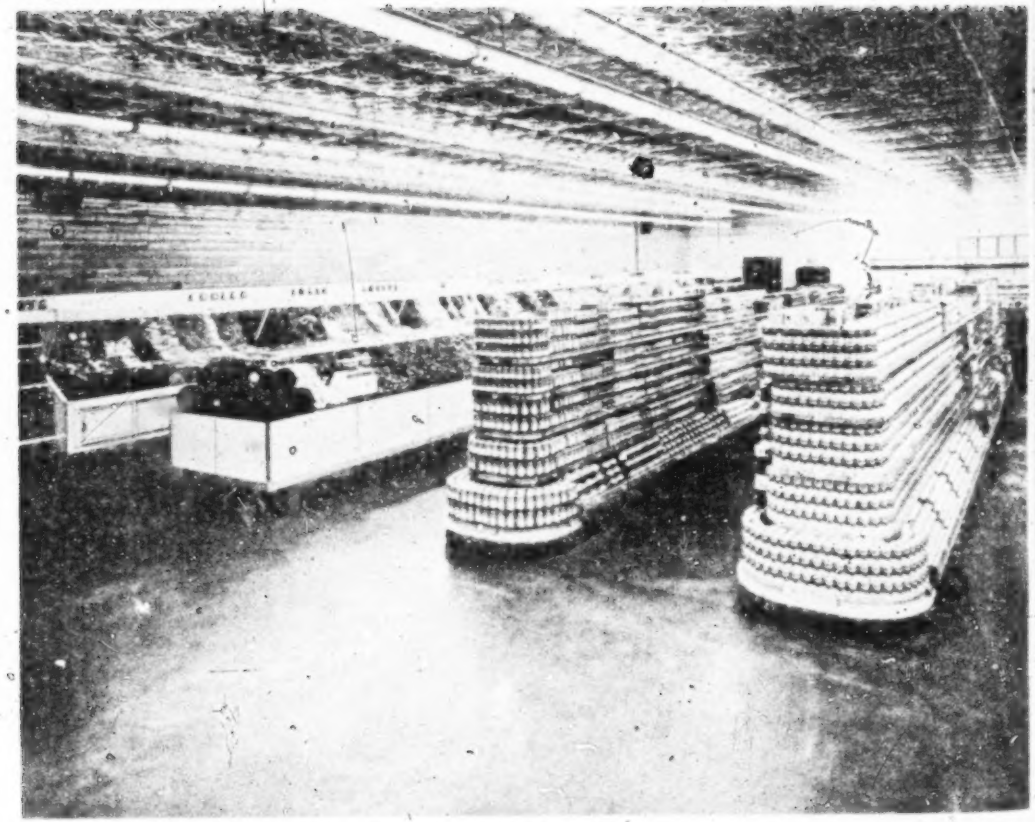
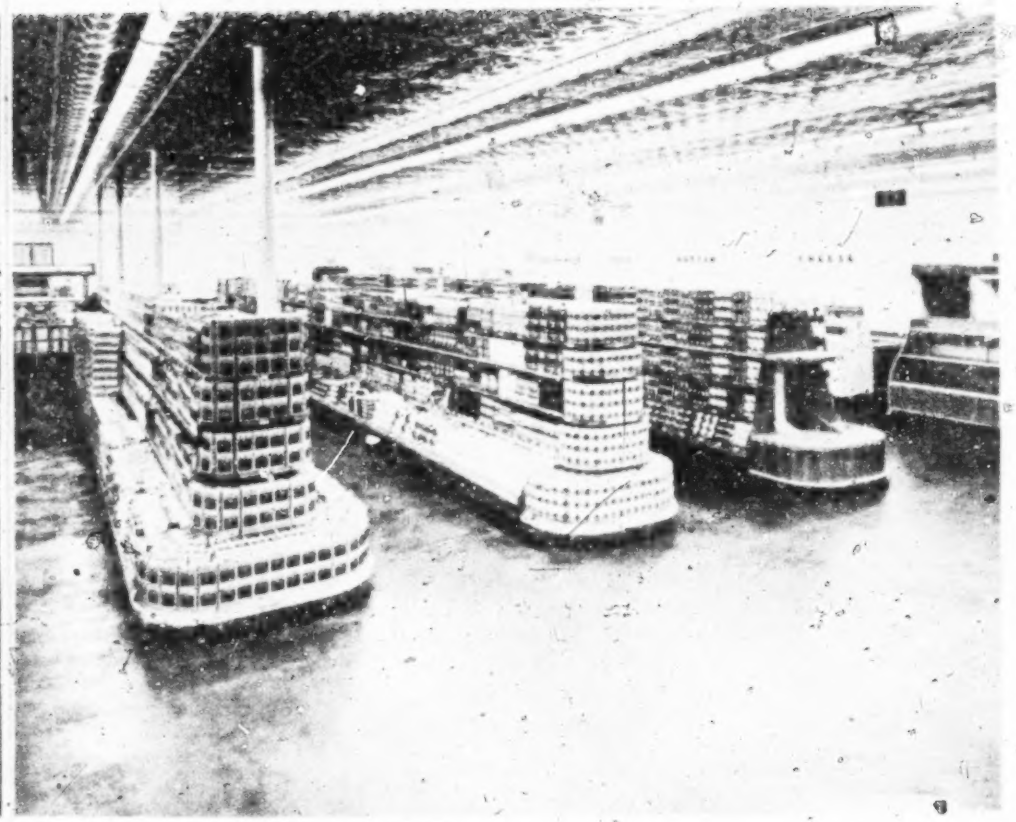
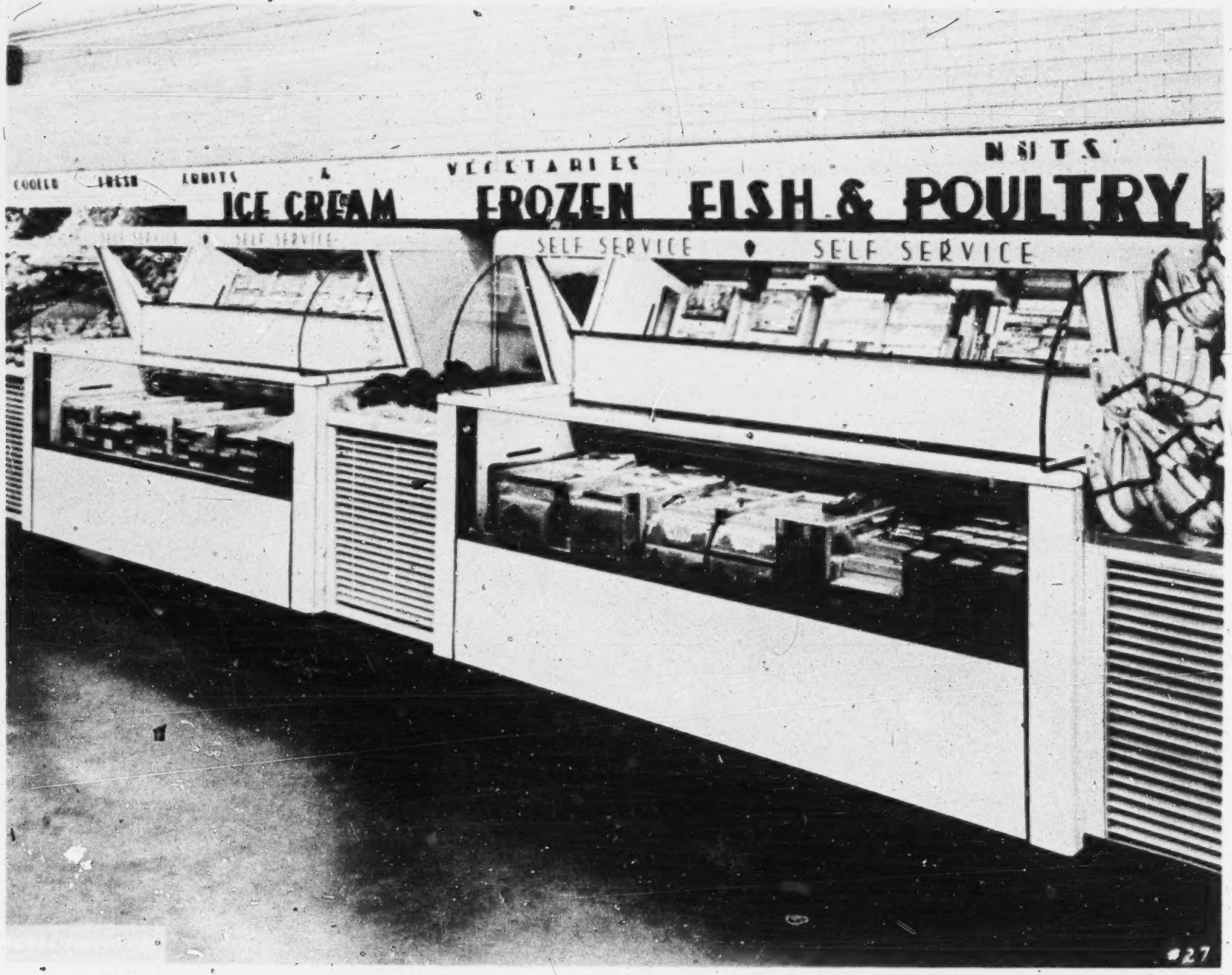
Defendant's Exhibit D

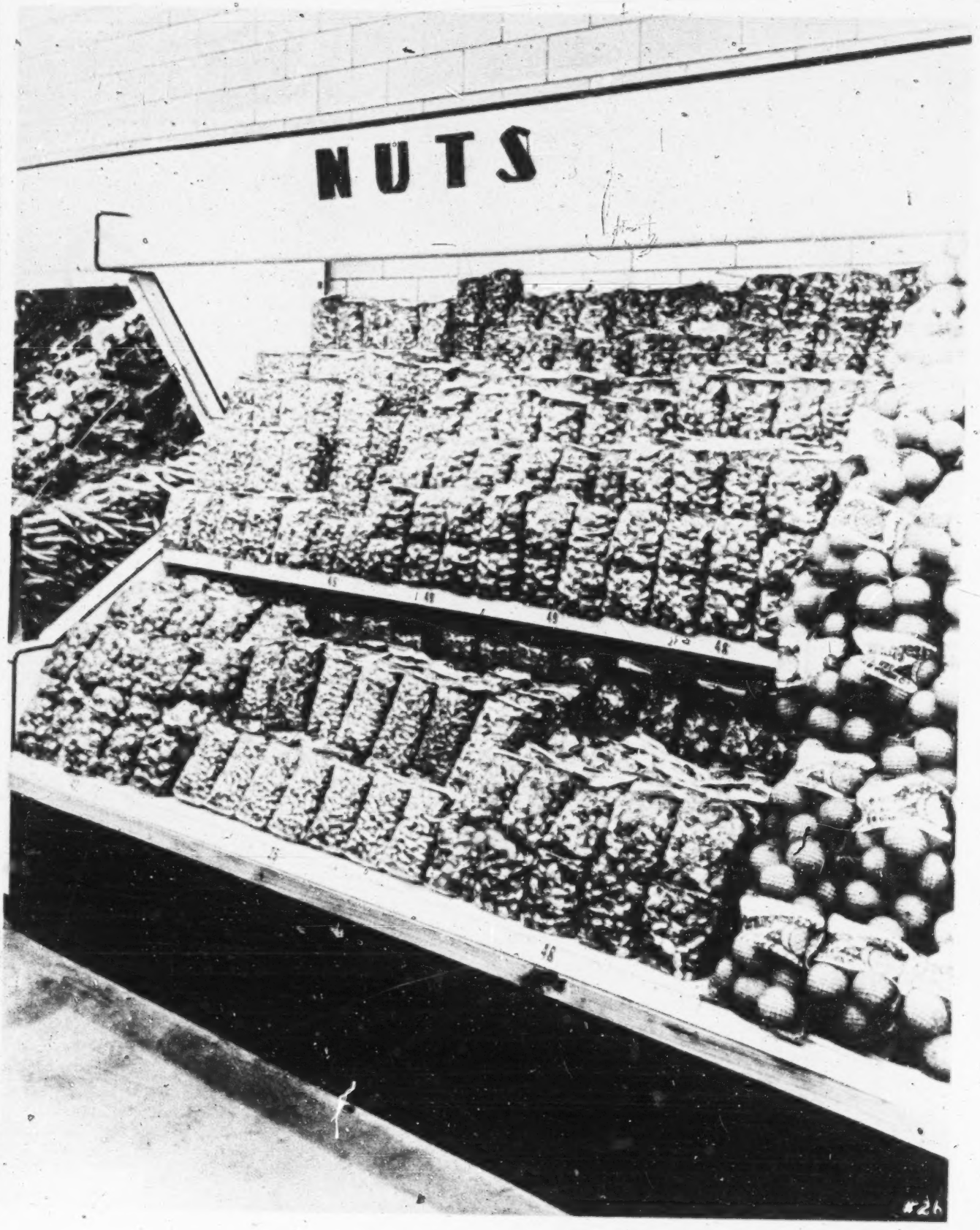


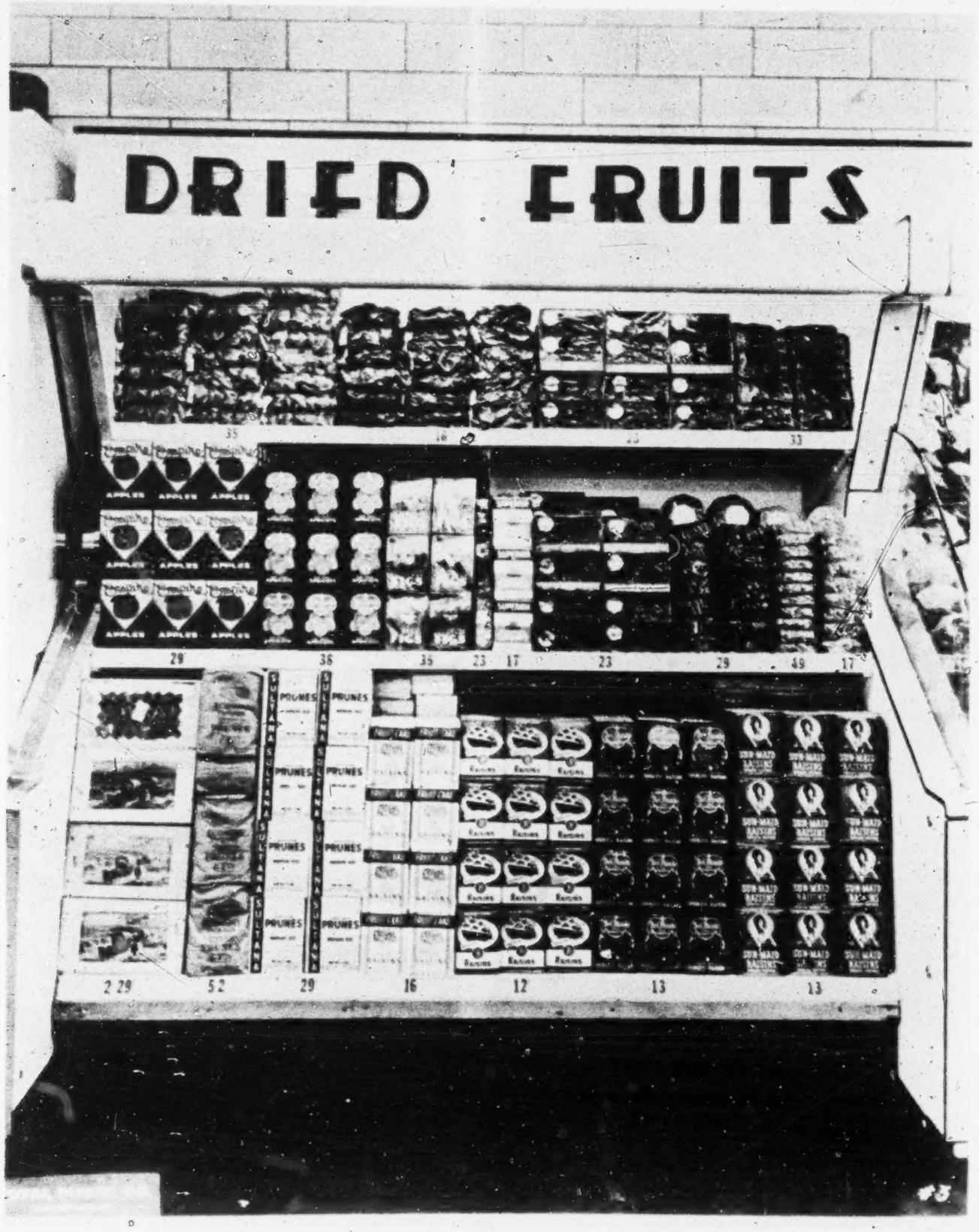



ICE CREAM
FROZEN FISH & POULTRY
SELF SERVICE
SELF SERVICE
#27

400

Defendant's Exhibit D


NUTS


DRIED FRUITS
APPLES
PRUNES
RAISINS
SUN-MAID RAISINS

[fol. 457] Defendant's Exhibit E

Prior art cited by the Patent Office against the Turnham Patent.

F. J. Storch, et al., Patent No. 1,494,640.
G. D. Hagar Patent No. 1,233,775.
C. E. Rorrer, *et al.*, Patent No. 1,987,797.
H. E. Harvey Patent No. 1,350,996.

Defendant's Exhibit E. 404

May 20, 1924. 1,494,640

F. J. STORCH ET AL

PACKAGE DELIVERING APPARATUS

Filed Feb. 26, 1923 2 Sheets-Sheet 1

Fig 1.

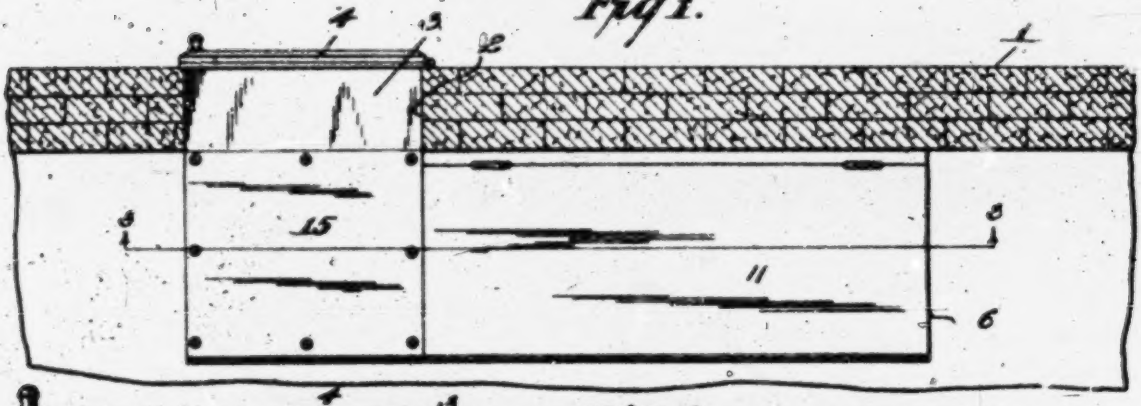


Fig 2.

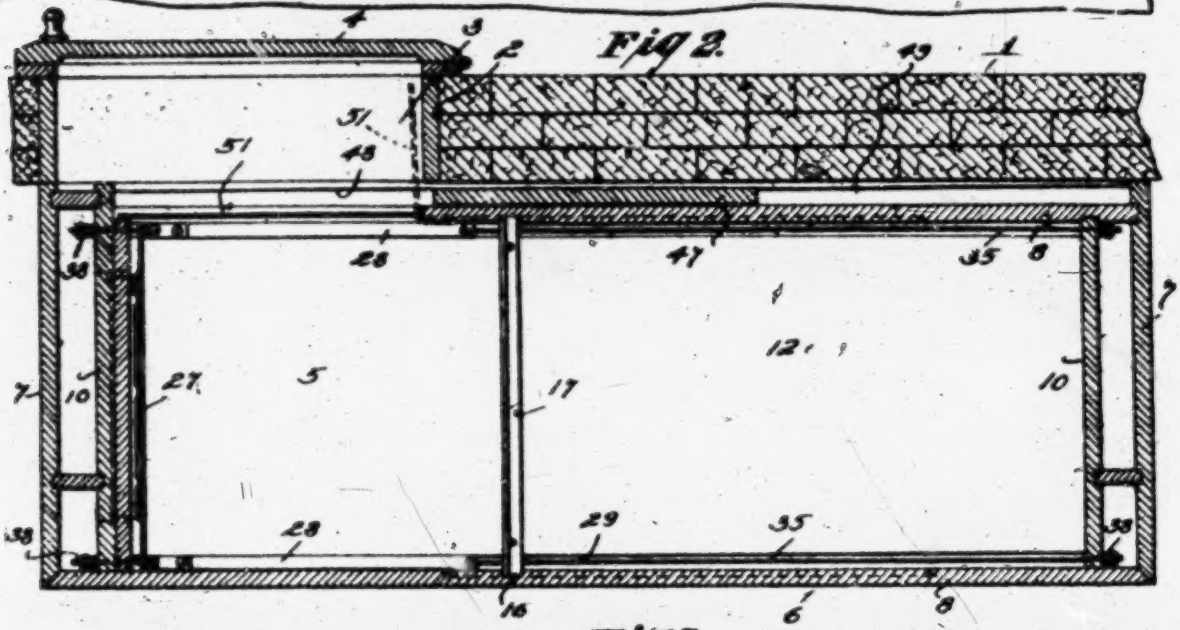
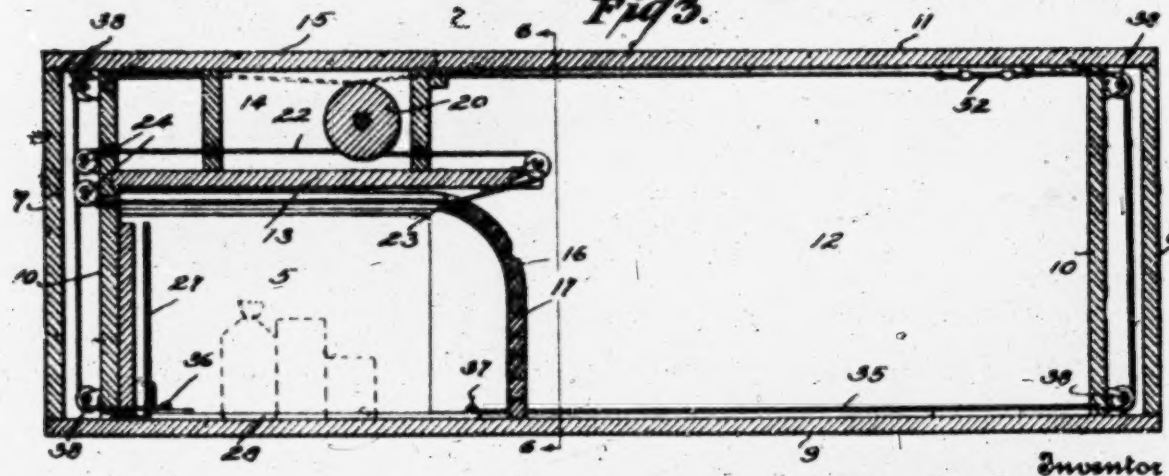


Fig 3.



Inventor

Frank J. Storch
and
Elgie R. Shaffer.

By C. C. Shepherd

Attorney

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405

Defendant's Exhibit E

May 20, 1924. 1,494,640

F. J. STORCH ET AL

PACKAGE DELIVERING APPARATUS

Filed Feb. 26, 1923 2 Sheets-Sheet 2

Fig 4.

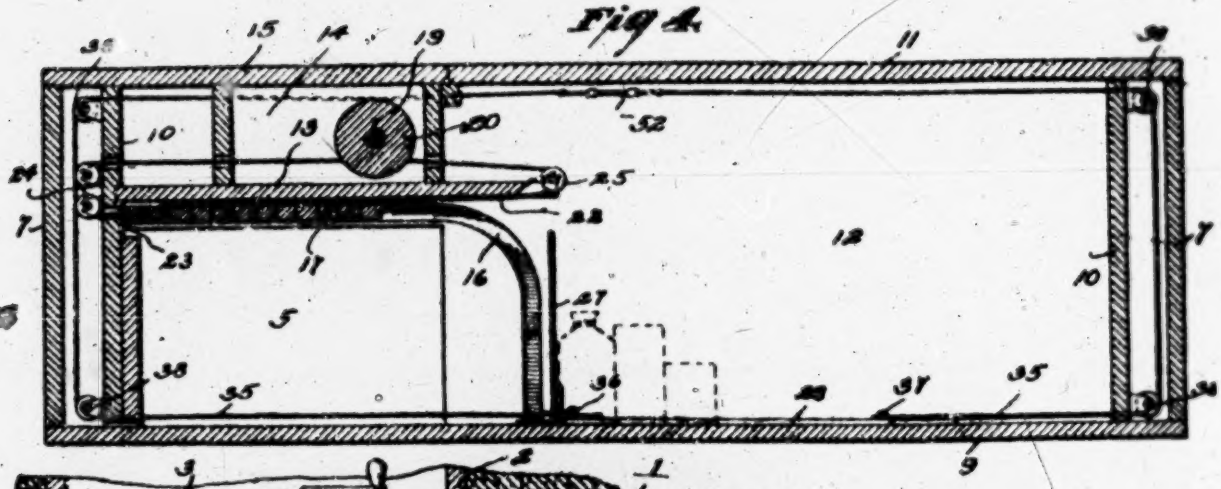


Fig 5.

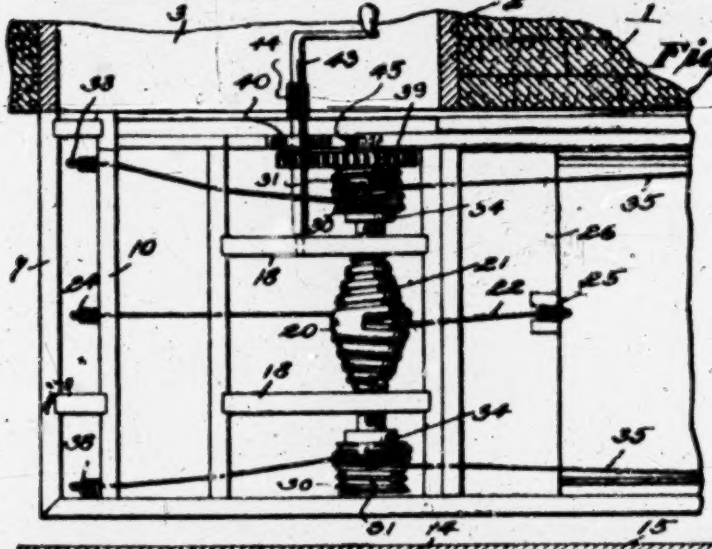


Fig 6.

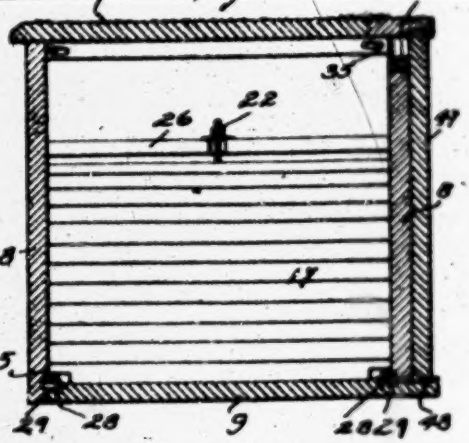


Fig 7.

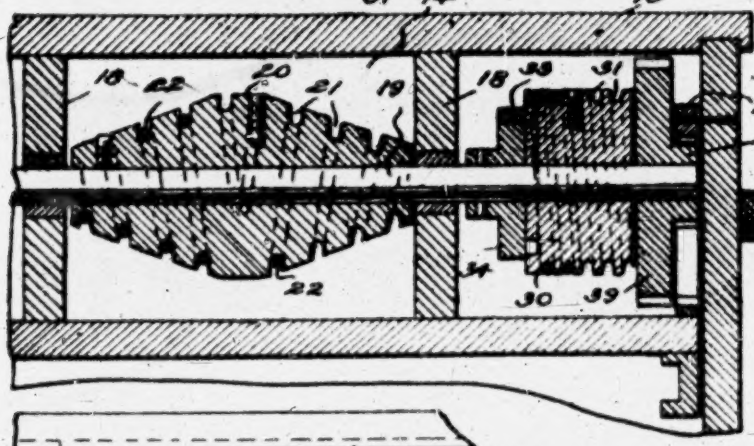


Fig 8.

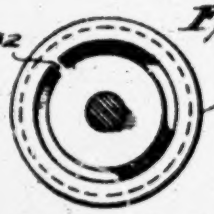


Fig 9.

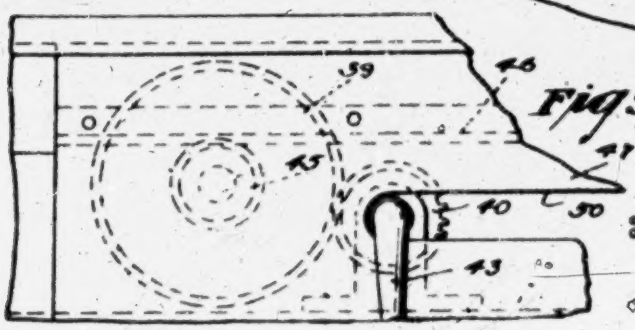
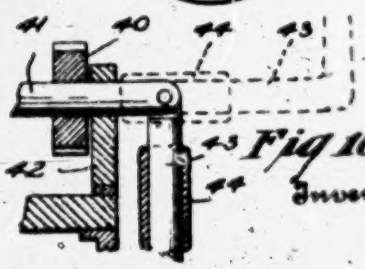


Fig 10.



Inventor

Frank J. Storch

Elgie W. Shaffer

By C. C. Shepherd Attorney

Defendant's Exhibit E

Patented May 20, 1924. 1,494,640.

UNITED STATES PATENT OFFICE.

FRANK J. STORCH AND ELGIE R. SHAFFER, OF COLUMBUS, OHIO.

PACKAGE-DELIVERING APPARATUS.

Application filed February 28, 1923. Serial No. 621,343.

To all whom it may concern:

Be it known that we, FRANK J. STORCH and ELGIE R. SHAFFER, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Package-Delivering Apparatus, of which the following is a specification.

The present invention is directed to improvements in package delivering apparatus.

The primary object of the invention is to provide an apparatus of this character so constructed that packages of various kinds can be delivered through the wall of a building into a room without necessitating the presence of a person in the room into which the packages are delivered.

A further object of the invention is to provide an apparatus of this character so constructed that packages will be protected against surreptitious removal from the outside after the packages have been delivered.

A still further object of the invention is to provide delivery apparatus constructed in such manner that after one party delivers a package or packages a succeeding party can not gain access to the packages previously delivered, the construction being such that each succeeding delivery of packages will force the precedingly delivered packages further away from the delivery chamber of the apparatus.

Still another object of the invention is to provide a delivery apparatus which can be installed in finished buildings or during the construction of a building and when installed will offer an attractive appearance and serve as a seat or the like for a room in the building.

With these and other objects in view, as will appear as the description proceeds, the invention consists in the novel features of construction, combinations of elements and arrangements of parts, and hereinafter to be fully described and pointed out in the appended claims.

In the accompanying drawing:

Figure 1 is a top plan view of the apparatus showing the same installed in a section of a wall,

Figure 2 is a horizontal sectional view through the same,

Figure 3 is a sectional view on line 3—3 of Figure 1, showing the delivery mechanism in its receiving position,

Figure 4 is a similar view showing the delivery mechanism in its position after the delivery of packages,

Figure 5 is a fragmentary top plan view of the cable operating mechanism,

Figure 6 is a sectional view on the line 6—6 of Figure 3,

Figure 7 is a fragmentary vertical sectional view through the cable operating mechanism,

Figure 8 is an end view of one of the cable operating drums,

Figure 9 is a fragmentary side elevation of the closure, and

Figure 10 is a detail view of the crank handle.

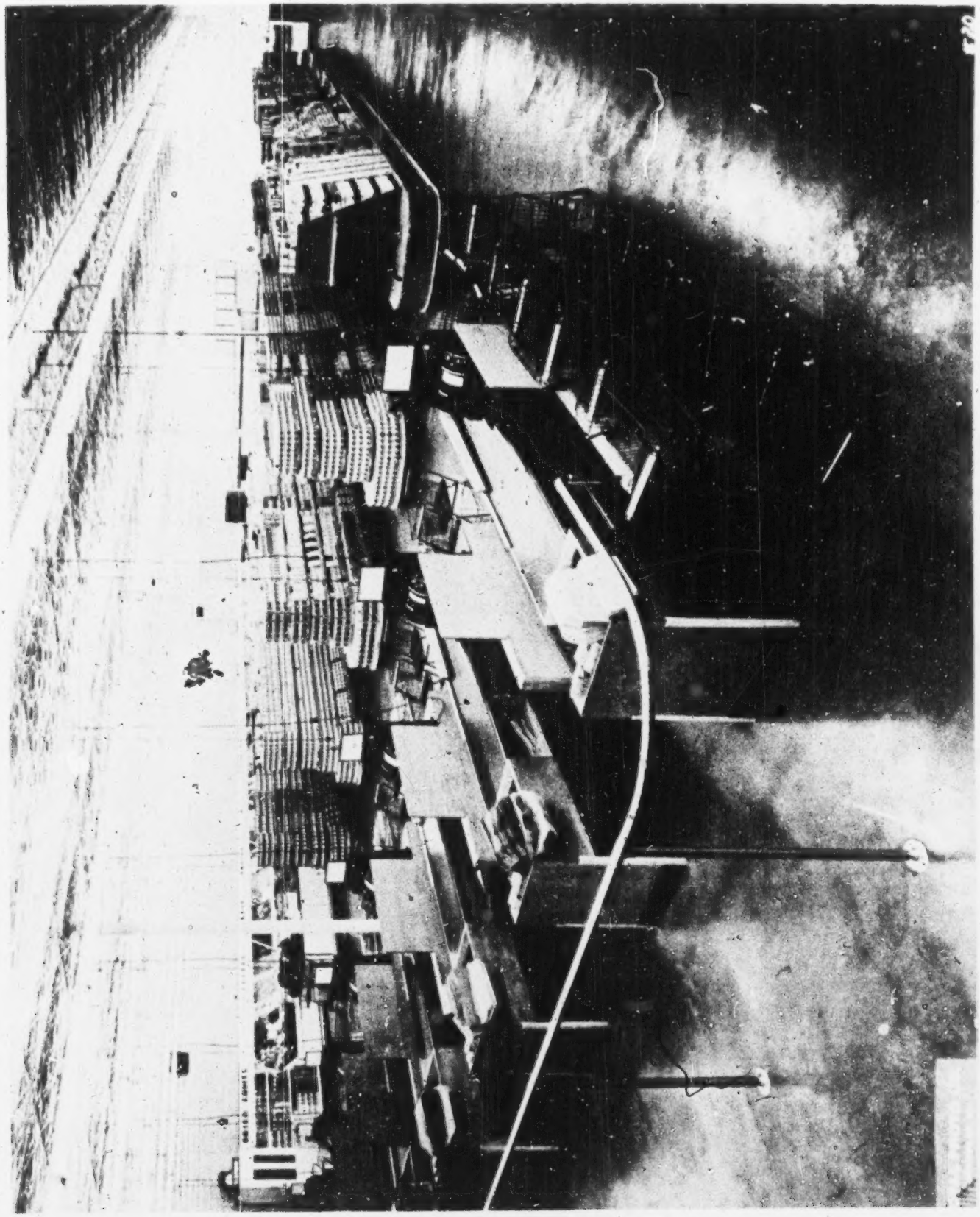
To install the apparatus it is necessary to provide the building wall 1 with an opening 2 in which is mounted a casement 3, the outer end of which opens to the outside of the wall and is normally closed by a hinged door 4. The inner end of the casement communicates with the delivery chamber 5 of the housing 6 which is located adjacent and extends longitudinally of the inner face of the wall 1 as clearly shown in Figure 1 of the drawing.

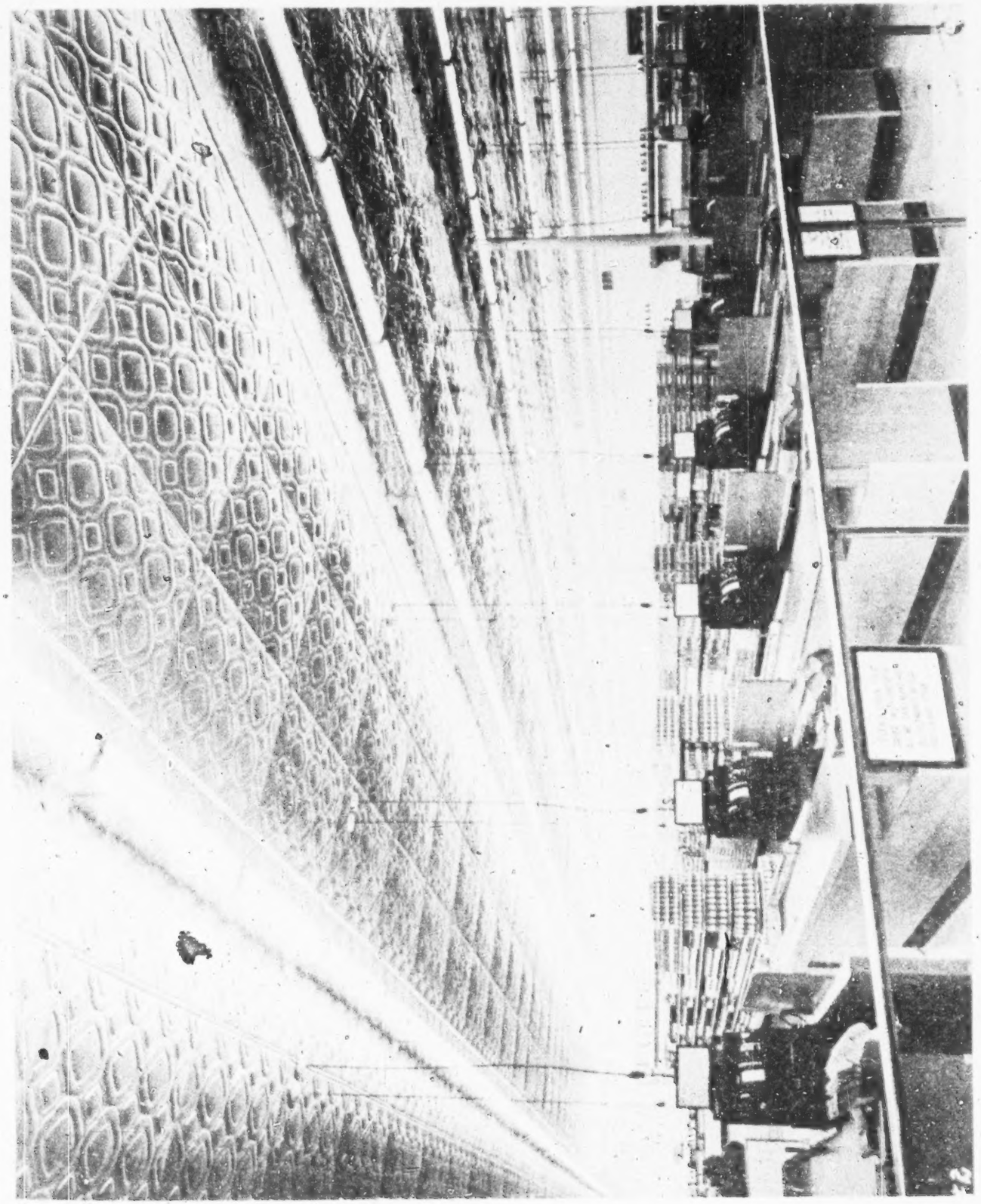
This housing comprises side and end walls 7 and 8, respectively, a bottom 9, and end partitions 10, said housing being closed by a hingedly connected top 11 which closes the receiving chamber 12 of the housing, there being a top plate 13 for the delivery chamber 5, as more clearly illustrated in Figures 3 and 4, there being a compartment 14 located above the chamber 5 which is closed by a top 15. It will be observed that since the housing 6 is located within a room of a building the same will effectively serve as a seat, and will in no way detract from the appearance of the room in which it is located.

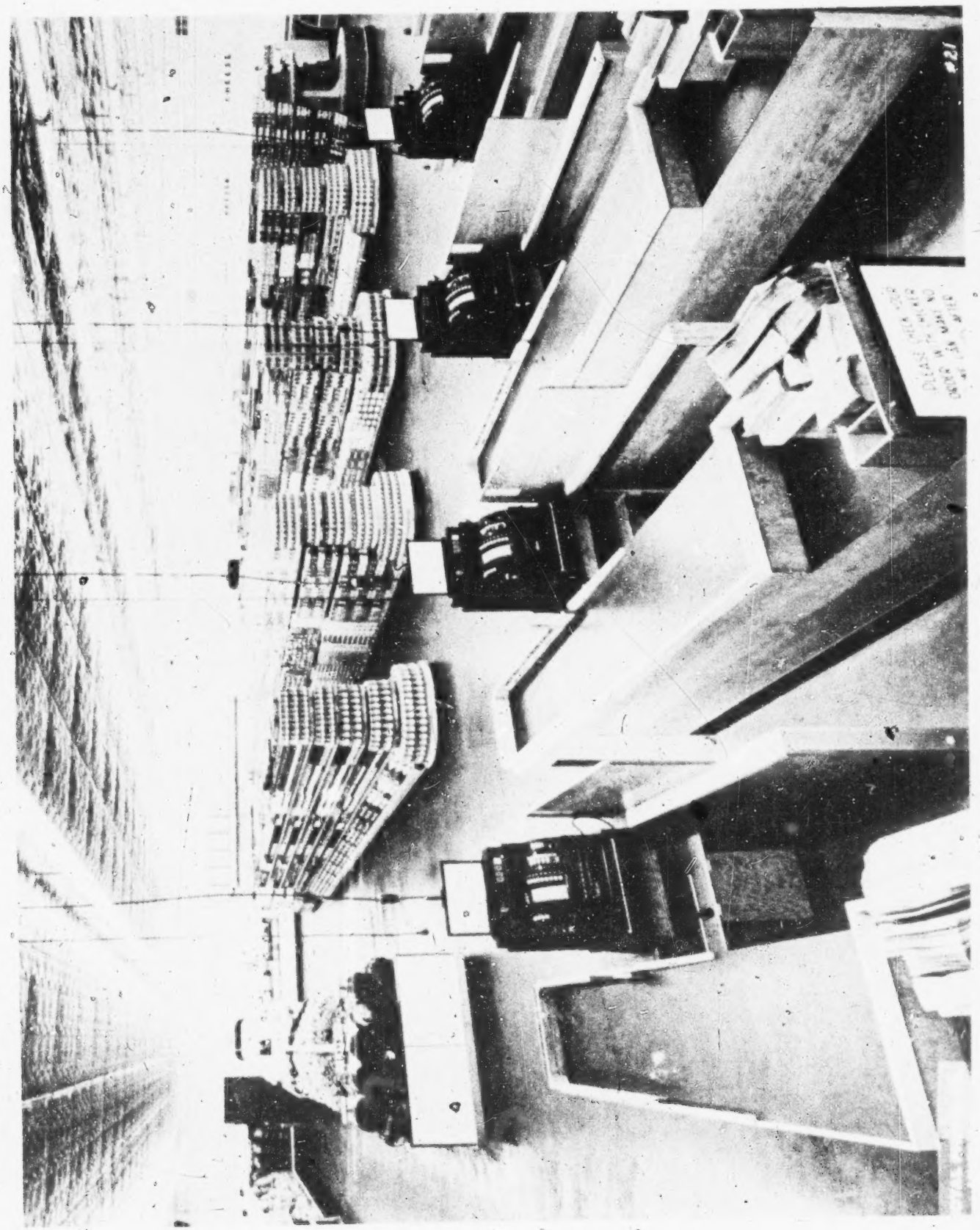
The sides of the housing are provided with directly opposed grooves 16 which serve as guides for the side edges of the flexible partition 17, which when in the position as shown in Figures 2, 3 and 6 shuts off communication betwen the chambers 5 and 12 so that when the packages are deposited in the latter access to the former from the outside of the building is prevented.

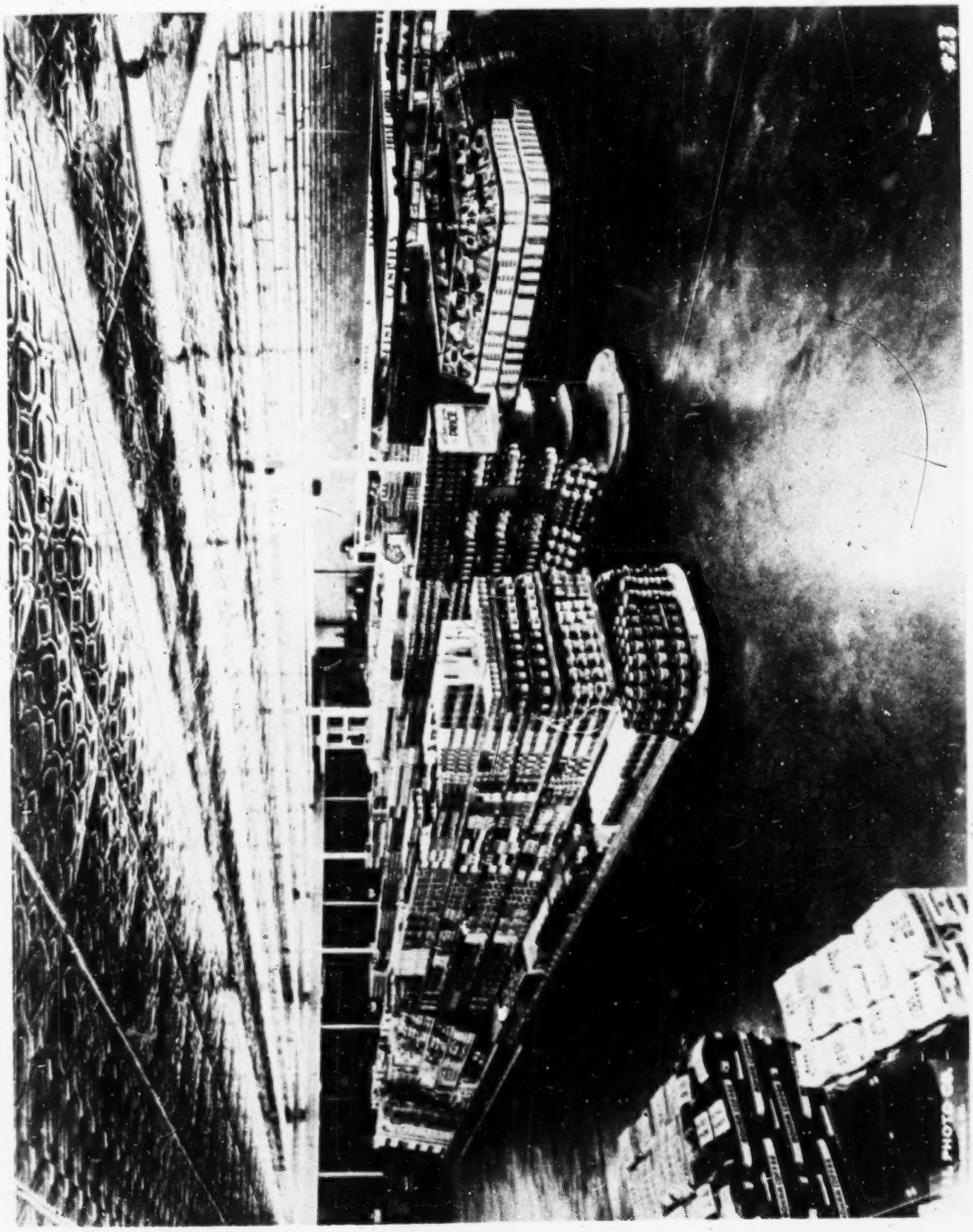
Arranged in the compartment 14 are spaced supports 18 in which are journaled the shaft 19 and fixed to the shaft at a point between the supports 18 is an oppositely-tapered drum 20, the tapered portions thereof

Defendant's Exhibit D









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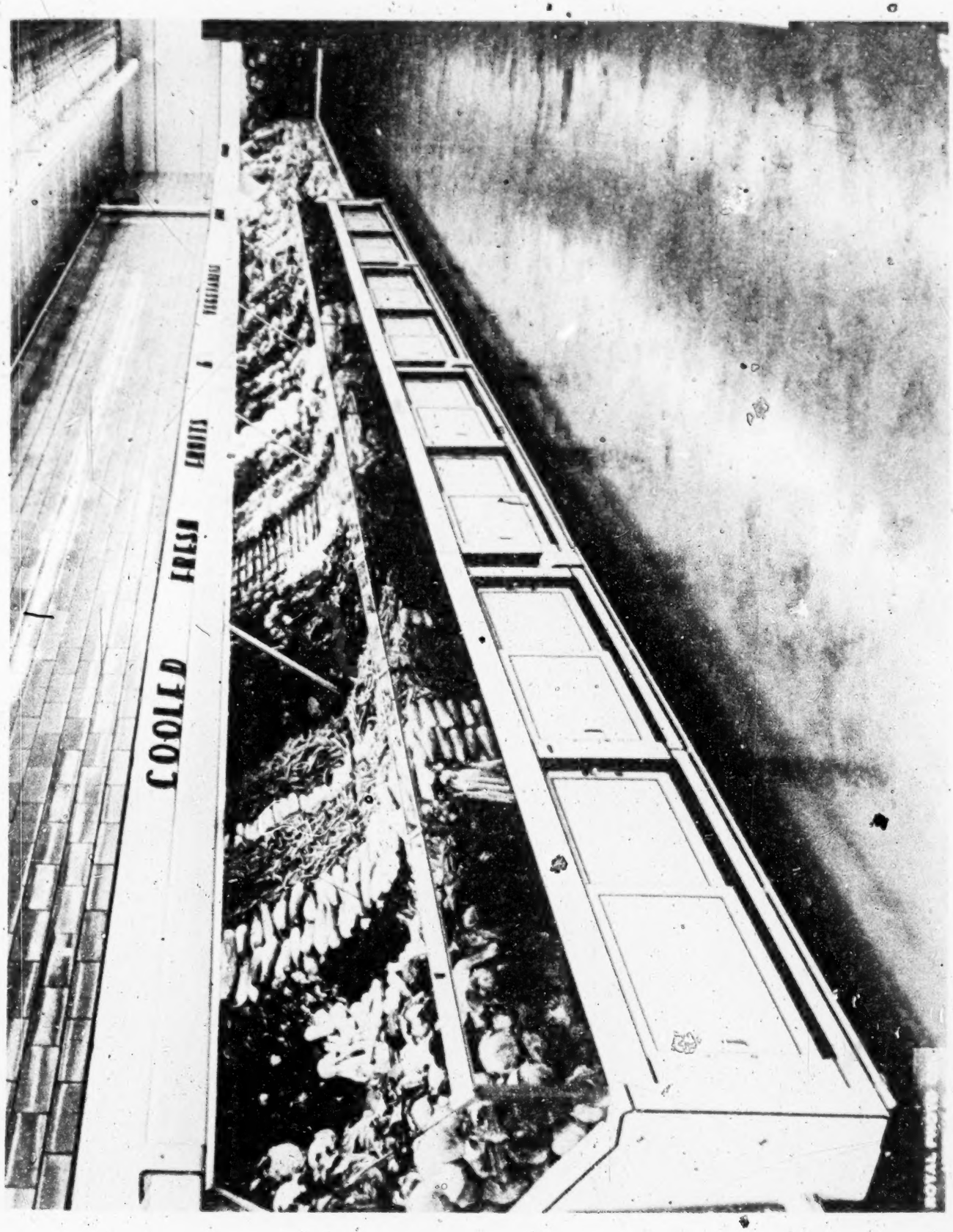
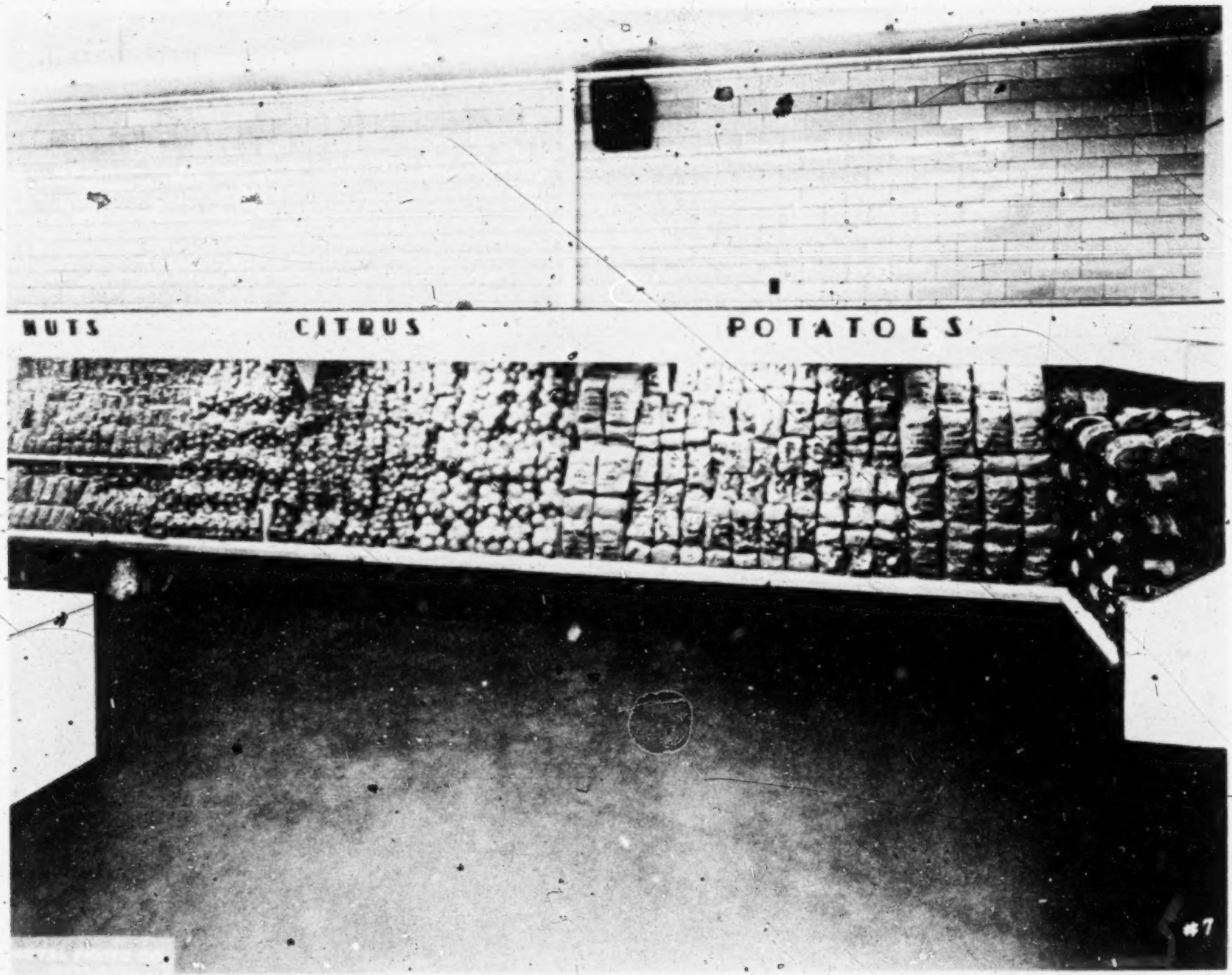
Defendant's Exhibit D

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having spiral grooves 21, and secured in any suitable manner in the ends of certain of said grooves are the opposite ends of a cable 22, which is capable of being first wound in one direction and then in another upon said drum according to the direction in which the drum is rotated, said cable being secured as at 23, intermediate its ends to one end of the partition 17, whereby when the drum is rotated to the right the cable will cause said partition to slide to its closed position, as shown in Figure 3, said partition moving to its open position when the drum is rotated in a reverse direction. The cable 22 is trained around pulleys 24 and 25, the former being supported by the adjacent partition 10 and the latter is carried by the shelf 26 which overhangs the partition 17 when said partition is in its closed position.

Slidable in the chamber 5 is a vertically disposed follower 27 which has secured to its lower corners strips 28 which are adapted to slide in the guide grooves 29 formed at the juncture of the lower edges of the sides 8 and side edges of the bottom 9.

The construction of these grooves is such that the strips can slide freely but can not tilt, thereby assuring that the follower will be held in a true vertical position.

Loosely mounted adjacent the ends of the shaft 19 are supplemental drums 30, which are provided with spiral grooves 31, said drums having their inner ends provided with stops 32 for cooperation with pins 33 carried by the inner face of the disks 34, said disks being fixed to the shaft 19, and consequently are compelled to rotate therewith.

A pair of cables 35, preferably continuous, are provided and have one of their ends fixed to the strips 28 adjacent the follower 27, as at 36, the other ends being fixed to the remote ends of said strips, as at 37. These cables are partially wound intermediate their ends upon the drum 30 and are guided in their winding and unwinding by the grooves 31.

Each partition 10 is provided with vertically spaced pulleys 38 around which the cables 35 are trained so that portions thereof will travel in vertical and horizontal positions.

Fixed adjacent one end of the shaft 19 is a gear 39 which has meshing therewith a pinion 40 fixed to the shaft 41. The shaft 41 is journaled in the bracket 42 and adjacent support 18 and has pivotally connected thereto a crank handle 43, there being a sleeve 44 capable of being slid over the pivotal connection between the handle 43 and shaft 41 to hold the former in the position as shown in dotted lines in Figure 10 for conveniently rotating the shaft 41 and thus the shaft 19. When the sleeve 44 is in the position shown in full lines in Figure 10 the crank handle is folded and will be concealed in the casement 3 so that the door 4 can be closed.

A pinion 45 is fixed to the shaft 19 and rests against the gear 39. Cooperative with the pinion 45 is a rack bar 46 which is fixed to the closure 47, said closure having its lower edge slidable in the guide 48 formed in the bottom 9, and slides between the inner end of the casement 3 and chamber 5 to normally cut off communication therebetween. A space 49 is provided between the wall 1 and adjacent side 8 of the housing to accommodate the closure to permit the same to slide in the desired direction. The closure is further provided with a slot 50 in which the outer end of the shaft 41 and sleeve 44 are received to permit the closure to slide without interference.

When the follower 27 and partition 17 are in the positions as shown in Figures 2 and 3 the closure 47 is in its open position and packages can be placed in the chamber 5 in advance of the follower and since the partition 17 is in its closed position communication between the chambers 5 and 12 is cut off so that a person can not reach from the chamber 5 into the chamber 12 to remove packages previously deposited therein. After packages have been placed in the chamber 5 and in advance of the follower 27 the crank handle 43 is turned in an anticlockwise direction by the operator through the medium of the pinion 40 and gear 39 thereby imparting rotary movement to the shaft 19, whereupon the pinion 40 will, owing to its meshing relation with the rack bar 46 cause the closure 47 to slide to partially close the entrance to the chamber 5, and continued rotation of the shaft 19 will cause each disk 30 to make a complete revolution which causes the pins 33 carried thereby to engage the stops 32 whereby movement will be successively imparted to the drum 20 and supplemental drums 30 to cause the same to rotate to the right. In other words the drum 20 will first rotate to cause the cable 22 to travel in a direction to raise the partition 17 to finally assume the position as shown in Figure 4, and just previous to the partition assuming this position the drums 30 begin to rotate also to the right thus causing the cables 35 to travel in a direction to move the follower 27 toward the chamber 12 to push packages in advance thereof into said chamber and after the follower has thus moved, the closure 47 will have entirely closed the entrance opening to the chamber 5. Since the closure 47 slides to its closed position as the follower is moving toward the chamber 5 and the partition 17 is moving to its open or elevated position said closure will prevent a person from reaching into the chamber 5 to remove packages previously deposited therein. By the provision of the gear

39 and pinion 40 the shaft 19 can be rotated with comparative ease owing to the reduction obtained by said pinion and gear.

To preclude any possibility of a person reaching from the chamber 5 into the chamber 12 when the closure 47 is partially open a door 51 is provided and is hingedly mounted in the entrance of the chamber 5, said door being so arranged that when in its open position it will be in the path of movement of the closure 47 which will swing the same to its closed position as said closure slides to its closed position.

To return the follower 27 to its normal position in the chamber 5, the handle 43 is rotated in a clockwise direction thereby reversing the travel of the follower 27 and partition 17 and at which time the closure has slid to its open position so that a succeeding delivery of packages can be made.

It will be of course understood that when the follower 27 is in its normal position within the chamber 5 that the door 4 will be closed to prevent dirt, dust or any foreign matter from entering said chamber, and since the top 11 can be raised the packages delivered to the receiving chamber can be removed by a person within the house. Thus it will be seen that an apparatus has been produced whereby packages can be delivered safely without the necessity of the occupant of a house being present.

What is claimed is:

1. A package delivery apparatus comprising a housing adapted to be placed interiorly of a building wall, said housing comprising a delivery chamber and a receiving chamber, means for normally cutting off communication between said chambers, and means mounted in the delivery chamber and movable into the receiving chamber when said chambers are in communication.

2. A package delivery apparatus comprising a housing, said housing comprising a delivery chamber and a receiving chamber, a follower movable longitudinally within the delivery chamber, a partition for preventing communication between said chambers when the follower is located in the delivery chamber, and means for successively operating the partition and follower to permit the latter to move into the receiving chamber when the former is elevated to afford communication between said chamber.

3. A package delivery apparatus, comprising in combination a building wall having an opening therein, of a housing located adjacent the inner face of the wall and including a delivery chamber and a receiving chamber communicating with each other, the former chamber being in communication with said opening, a normally open closure for the entrance of the delivery chamber, a partition for normally cutting off or affording communication between the chambers, means for moving packages from the delivery chamber to the receiving chamber, means for moving the partition to afford communication between said chambers, and means for causing the package moving means to move packages from the delivery chamber into the receiving chamber and to simultaneously move the closure to close the entrance to the delivery chamber.

4. A package delivery apparatus comprising a housing including a delivery chamber and a receiving chamber, a flexible partition for normally cutting off communication between the chambers, a follower slidable in the delivery chamber, a main drum and supplemental drums, cables windable on the supplemental drums and connected with the follower, a cable windable on the main drum and connected with the partition, and means for rotating said drums to actuate the cables to first elevate the partition to afford communication between said chambers and then move the follower into the receiving chamber to deposit packages therein from the delivery chamber.

5. A package delivery apparatus comprising in combination a building wall having an opening therein, of a housing including a delivery chamber and a receiving chamber, the former chamber being in communication with the wall opening, a flexible partition for cutting off communication between said chambers, a follower slidable in the delivery chamber, a closure arranged between the wall opening and delivery chamber, means for elevating the partition to afford communication between the chambers and to cause the follower to move into the receiving chamber, and means to move the closure to close the wall opening when the partition is elevated and the follower is in the receiving chamber.

6. A package delivery apparatus comprising a housing having a delivery chamber and a receiving chamber, a follower slidable in the delivery chamber, a partition normally disposed between the chambers to cut off communication therebetween, a shaft supported by the housing and having a main and supplemental drums associated therewith, a cable windable on the main drum and connected with the partition, cables windable on the supplemental drums and connected with the follower, and means for rotating the shaft to successively operate the main drum and supplemental drums to elevate the partition and slide the follower from the delivery chamber into the receiving chamber.

In testimony whereof we affix our signatures.

FRANK J. STORCH.
ELGIE R. SHAFFER.

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Defendant's Exhibit E

G. D. HAGAR.

STORE FURNITURE.

APPLICATION FILED APR. 14, 1916.

1,233,775.

Patented July 17, 1917.

2 SHEETS—SHEET 1.

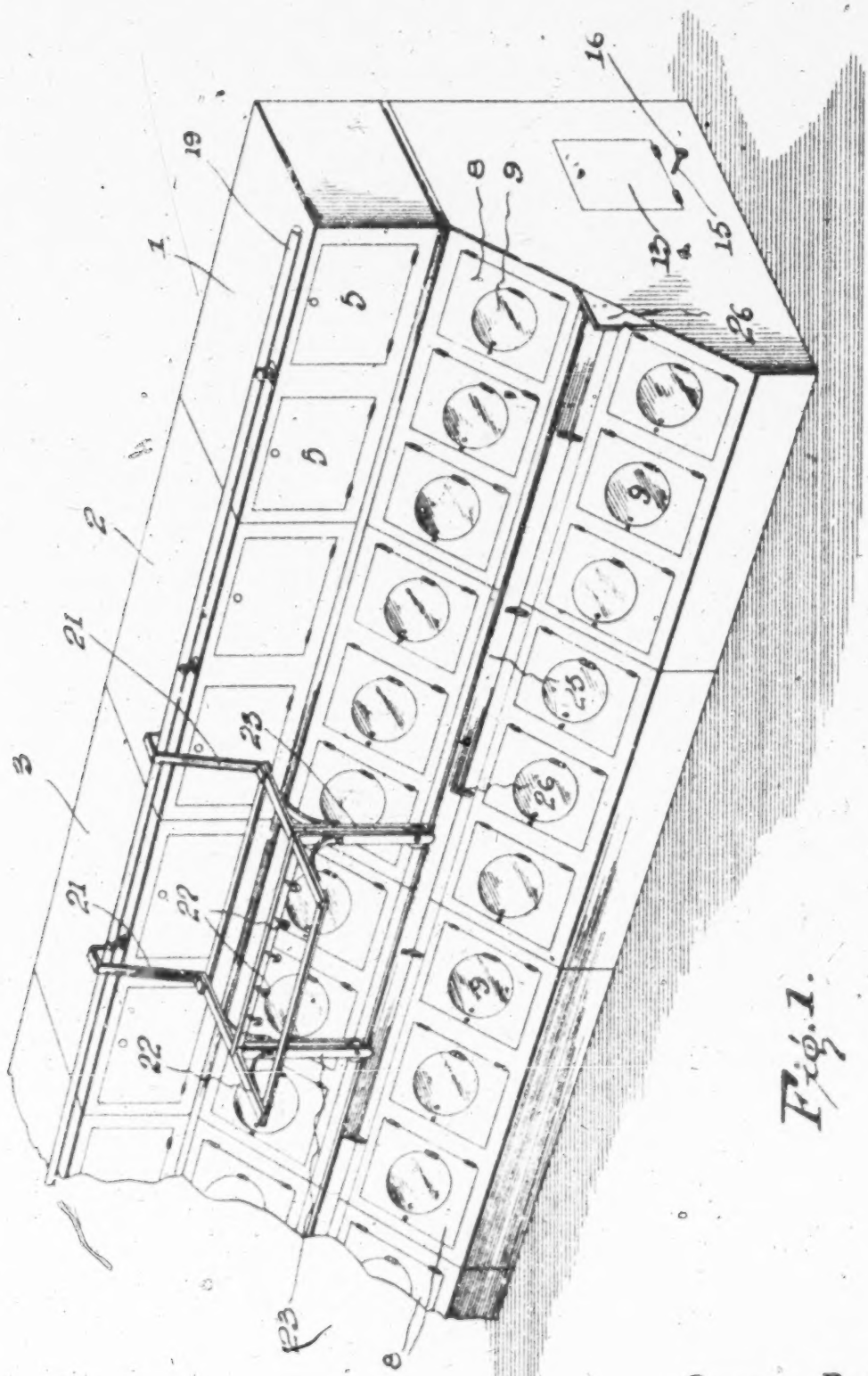

Fig. 1.

Inventor

George D. Hagar.

By

Attorneys

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Defendant's Exhibit E

G. D. HAGAR.

STORE FURNITURE.

APPLICATION FILED APR. 14, 1916.

1,233,775.

Patented July 17, 1917.

2 SHEETS—SHEET 2.

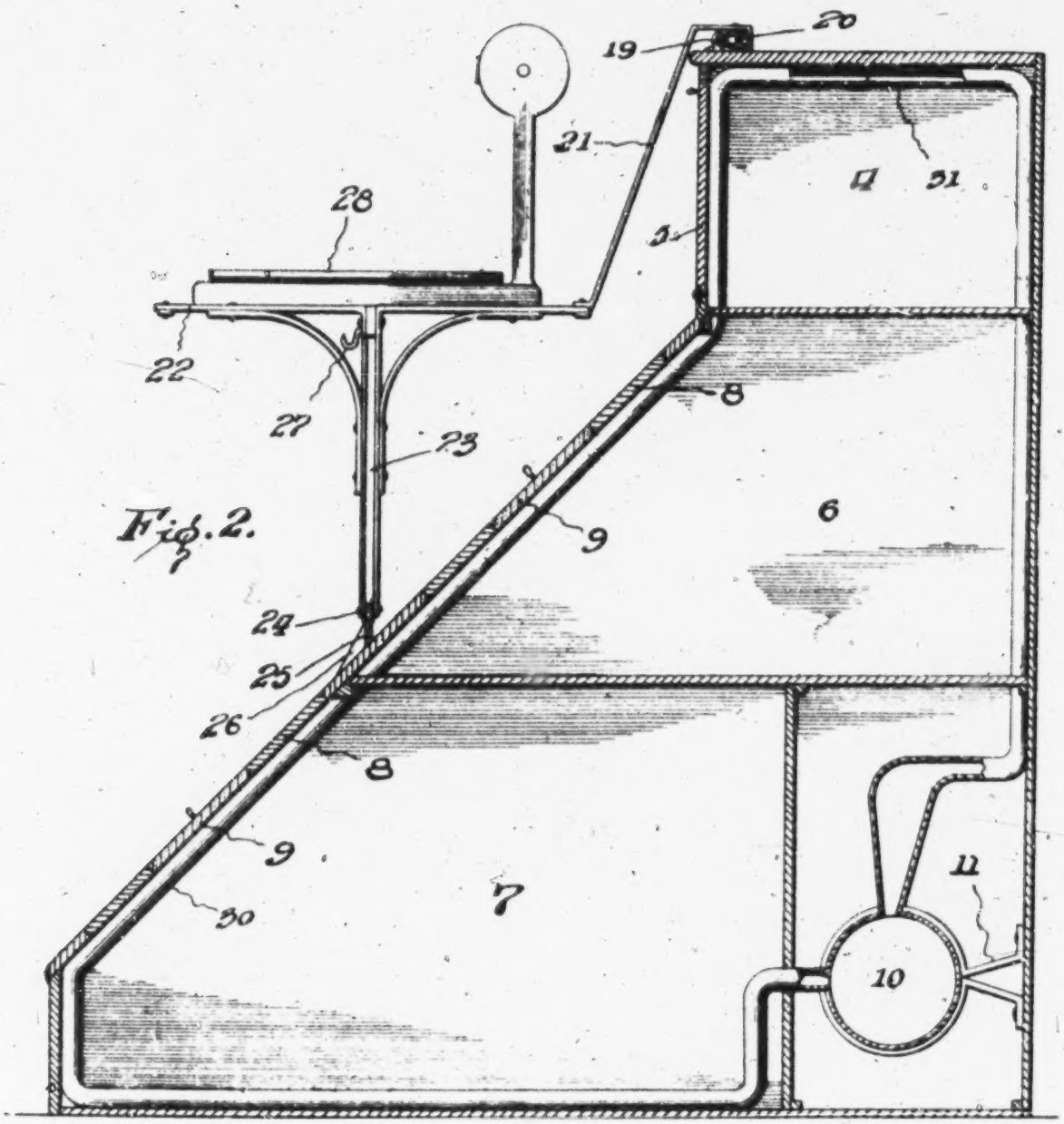

Fig. 2.

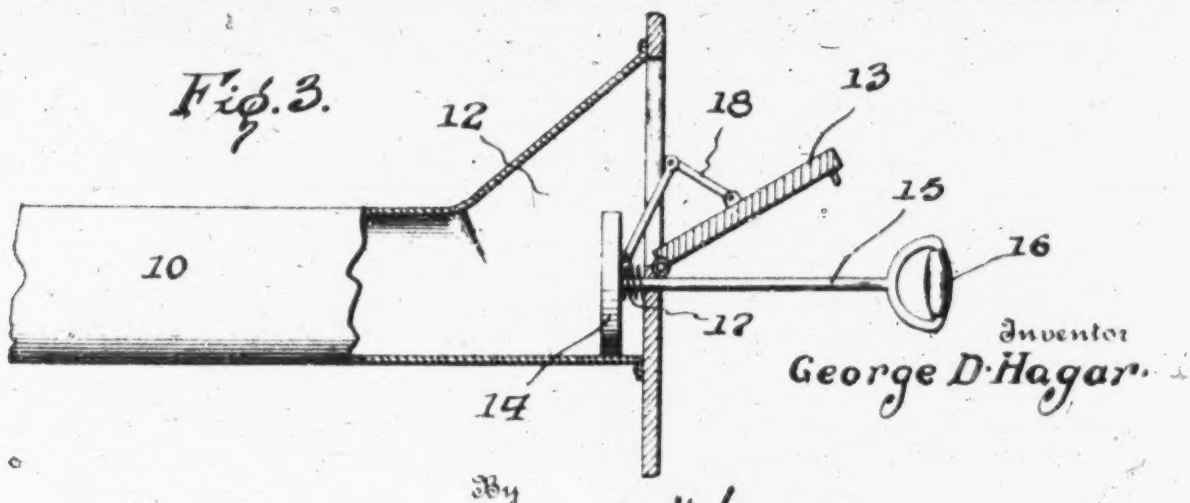

Fig. 3.

Inventor
George D. Hagar.

By

Attorneys.

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Defendant's Exhibit E

UNITED STATES PATENT OFFICE.

GEORGE D. HAGAR, OF ALTON, IOWA.

STORE FURNITURE.

1,233,775. Specification of Letters Patent. Patented July 17, 1917.

Application filed April 14, 1916. Serial No. 91,148.

To all whom it may concern:

Be it known that I, GEORGE D. HAGAR, a citizen of the United States, residing at Alton, in the county of Sioux and State of Iowa, have invented certain new and useful Improvements in Store Furniture, of which the following is a specification.

This invention relates to store furniture and has special reference to cabinets for the display of merchandise. One object of the invention is to provide a cabinet which may be readily extended to accommodate stocks of various sizes and which will be provided with means for supporting a conveyer for bags and weighing scales. A further object of the invention is to provide a refrigerating system in connection with the cabinet so that perishable goods will be preserved.

These stated objects of my invention and such other objects as will incidentally appear from the following description are attained in the structure illustrated in the accompanying drawings, and the invention resides in certain novel features which will be particularly pointed out in the claims following the description.

In the drawings,

Figure 1 is a perspective view of a display cabinet having my improvements applied thereto;

Fig. 2 is a vertical transverse section;

Fig. 3 is a detail section of the end of the refrigerating tube.

In carrying out my invention, I construct the cabinet in sections, indicated at 1, 2 and 3, which will be duplicates in construction so that by placing any number of the sections end to end, store furniture of any desired capacity may be provided. The cabinet sections are provided with upper portions or compartments 4 containing shelves or bins and provided with doors 5. The lower portion of the cabinet is extended beyond the front of the upper compartments 4 and the front wall of the lower portion is inclined, as shown clearly in Figs. 1 and 2. This extended portion of the cabinet will provide an intermediate compartment 6 and a lower compartment 7, which compartments may be sub-divided by transverse partitions into as many smaller bins or merchandise receiving chambers as may be desired. In the front end of each merchandise receiving chamber I provide a filling door 8, which will preferably be of such dimensions as to be substantially coextensive with the end of the compartment and will be of wood or metal, or other substantial material. Disposed centrally in each door 8 is a circular glass door 9 which will be of sufficient diameter to permit ready access to the goods when a sale is made. The provision of the glass door will permit the goods to be viewed without being handled so that the sanitary condition of the goods will be maintained and it will not be necessary to open the compartment and admit warm air to the goods in order that customers may examine the same. Moreover, the goods will be placed in the compartments as they are received by the merchant in the original packages and, consequently, damaging and disease-transmitting handling of the goods will be avoided.

Disposed longitudinally of the cabinet in the lower rear corner of the same is a refrigerating tube 10 which is supported by brackets 11 secured to the back wall of the cabinet and so arranged as to drain from one end to the other end. An outlet or waste pipe may be provided at the drain end of this tube to carry off the water in any desired manner. The filling end of the tube is enlarged, as shown at 12, and is normally closed by a door 13, which is hingedly mounted in the end wall of the cabinet. A plunger 14 is mounted in the tube adjacent the said door and is provided with a stem 15 projecting through the end wall of the cabinet and provided with a handle 16. A spring 17 is coiled around this stem between the end wall of the cabinet and the plunger and tends to hold the plunger away from the wall of the cabinet so that the door 13, which is connected with the plunger by toggles 18, will be normally held closed. When it is desired to place ice in the refrigerating tube the plunger is withdrawn, as shown in Fig. 3, and the door 13 thereby opened. As the blocks of ice are placed in the tube the plunger is released and by acting against the blocks will feed them toward the drain end of the tube. It will be understood that the toggles are duplicated and placed near the side edges of the plunger and the door so that they will not interfere with the admission of the ice. An air passage or pipe 30 is provided transversely at intervals throughout the cabinet and vents 31 are

formed in this passage at various points to permit the escape of the cold air to the several compartments.

Upon the top of the cabinet and close to the front edge of the same is a guide rail 19 which may be a rod of circular cross section so as to be readily engaged by grooved rollers 20 mounted in the upper ends of supporting arms 21, which extend upwardly and rearwardly from the rear edge of a platform 22. This platform 22 is secured to the upper ends of standards 23 which are provided at their lower ends with grooved rollers 24 adapted to ride upon a guide rail 25 which extends the full length of the cabinet on the inclined front portion of the same between the upper and lower rows of doors. This arrangement is clearly shown in Figs. 1 and 2 and in Fig. 1 it will be noted that brackets 26 are provided at the ends of this rail and at intervals in the length of the same to reinforce it. Hooks 27 are provided on the underside of the platform to hold bags or wrapping paper, as will be readily understood.

The different articles of merchandise are placed in the several compartments or bins provided by my cabinet and will be protected thereby from all accumulations of dust or contact with disease spreading instrumentalities. The doors 9 being glazed or entirely of transparent material, all of the articles may be readily viewed so that their condition will be seen at any time and handling of the goods will be minimized. The merchant's time will be saved as it will not be necessary for him to travel back and forth from the compartments to a counter but the conveyer or carrier comprising the platform 22 upon which a weighing scale 28 may be placed can be readily shifted from end to end of the cabinet so that the scales will be in the proximity of the goods to be weighed whenever needed. The refrigerating compartment is simply constructed and so located that the goods will not become saturated with moisture nor will the water from the melting ice be liable to run over and destroy the goods.

Having thus described the invention, what is claimed as new is:

1. A display cabinet comprising a lower portion having an inclined front wall and a top portion above the first-mentioned portion, a guide rail on said top portion near the front side of the same, a guide rail on the inclined front wall of the lower portion of the cabinet, and a carrier supported by the lower rail and mounted to travel thereon and having supporting arms extending rearwardly and upwardly to engage the upper guide rail.

2. The combination of a cabinet having an inclined front wall and a top portion above said inclined front wall, a longitudinal rail disposed medially on the said inclined wall, a guide rail on the top portion near the front side of the same, a carrier comprising a platform, standards supporting said platform and provided at their lower ends with rollers mounted to travel on the lower rail, and supporting arms extending upwardly and rearwardly from the rear side of said platform and arranged to engage the upper guide rail.

In testimony whereof I affix my signature.

GEORGE D. HAGAR. [L. S.]

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Defendant's Exhibit E

Jan. 15, 1935. C. E. RORRER ET AL 1,987,797

REFRIGERATING SHOW CASE

Filed Feb. 23, 1932

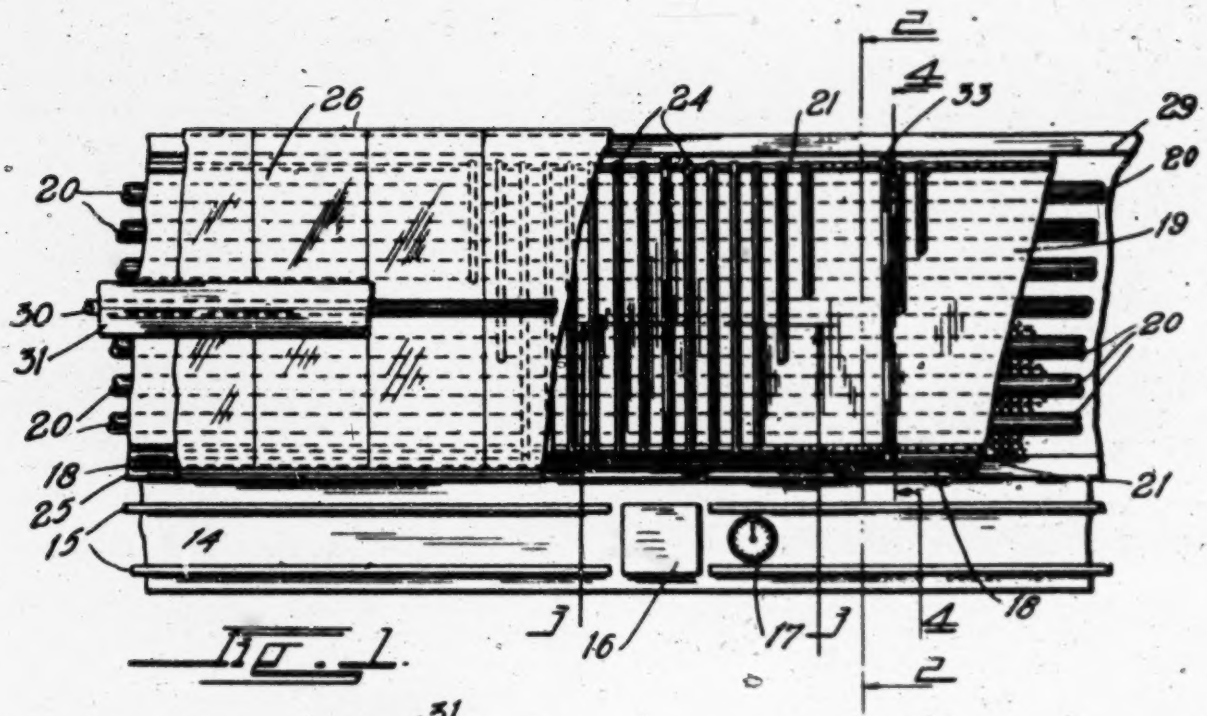

Fig. 1.

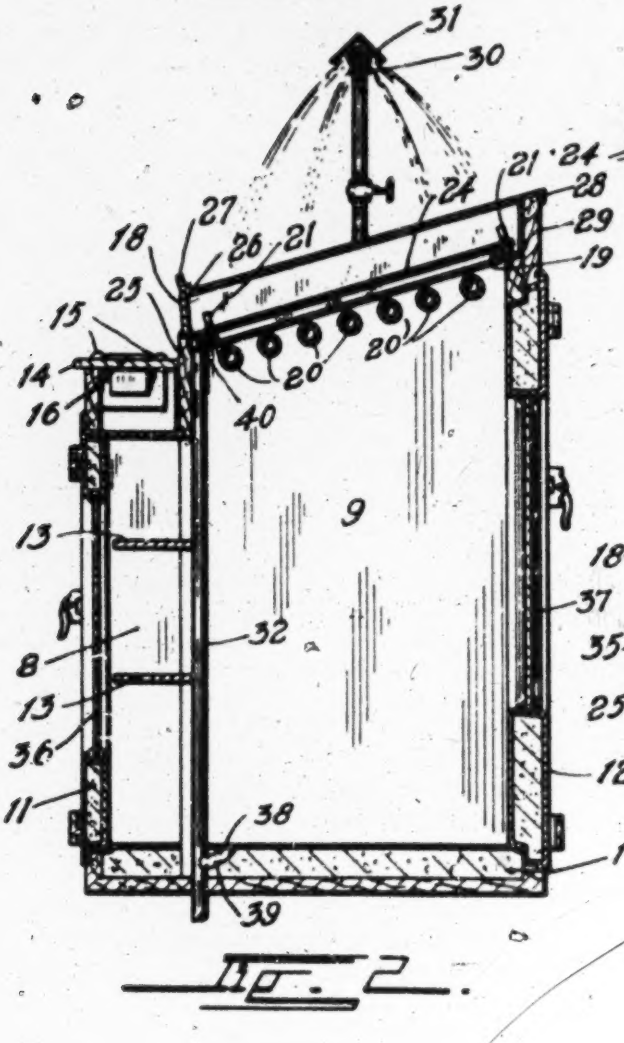

Fig. 2.

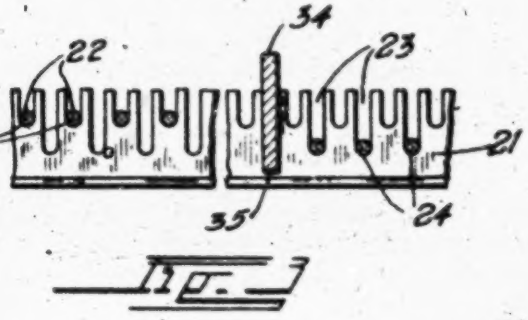

Fig. 3.

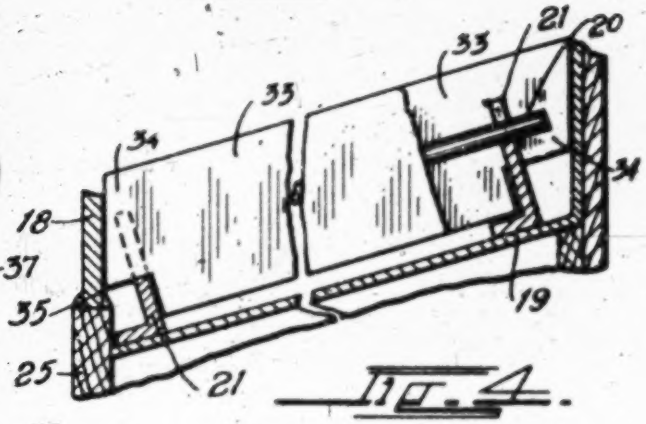

Fig. 4.

INVENTORS

C. E. Rorrer and A. R. Mitterer

BY

Rolandet and Stratton

ATTORNEYS

Defendant's Exhibit E

Patented Jan. 15, 1935 1,987,797

UNITED STATES PATENT OFFICE

1,987,797

REFRIGERATING SHOW CASE

Charles E. Rorrer and Albert R. Mitterer, Denver, Colo., assignors to Stadium Stores, Inc., Denver, Colo.

Application February 23, 1932, Serial No. 594,517

9 Claims. (Cl. 312—128)

Our invention relates to refrigerated show cases of the character shown and described in our application for patent, Serial No. 349,965, filed March 26, 1929, of which the present application is a continuation in part.

An important object of the invention is to provide means for simultaneously cooling and moistening vegetables and fruits that are on open display. Heretofore it has been customary to attempt to keep vegetables fresh by continually moistening them, and in warm climates this moisture is apt to induce wilting and decomposition. It has also been the custom to keep perishable materials in an enclosed refrigerator, with the attendant objection that a display of any value has been difficult if not impossible, and the goods are not then readily accessible to prospective purchasers.

Another object of the present invention is to provide a show case having an enclosed refrigerated space provided with a glass covered opening through which the contents of the space are visible from without, while at the same time, the articles in the space are readily accessible.

Still further objects reside in novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description.

In the drawing, like reference characters designate the same parts in the several views.

Figure 1 is a broken plan of a refrigerating show case embodying the objects of the present invention.

Figure 2 is a section taken on the line 2—2 of Figure 1.

Figure 3 is a broken section of the top of the refrigerating case taken on the line 3—3 of Figure 1 and drawn to an enlarged scale.

Figure 4 is a broken section of the top taken on the line 4—4 of Figure 1 and likewise drawn to an enlarged scale.

In the drawing, the reference numeral 9 designates a show case having an insulated floor 10. The case is closed at its front and rear sides by means of insulating doors 11 and 12 and immediately rearward of front door 11 is a space 8 containing shelves 13 for small articles of merchandise. The space 8 is closed at the top by a shelf 14 supporting slide rails 15. Alined with the upper surface of the rails is a weighing scale platform 16 and dial 17. A basket, or other carrying means, can be easily slid along the rails and onto the scale platform without lifting or lowering same. The dial 17 of the scale has been set between the rails for protection.

The case has a display top compartment provided with a glass front wall 18. The top compartment or bin has a metallic bottom 19 for the conduction of cold air from a set of cooling pipes 20 directly below the same. As can be seen, the pipes 20 not only cool the interior of the case, but also vegetables placed on the top above same.

The bottom 19 of the case slants rearwardly so that fruits and vegetables thereon may be more readily seen from the front of the case. Moreover, the slant gives the illusion to a prospective customer that there is a larger quantity on display than actually exists.

The slant with its corresponding illusion is valuable in merchandising since a small quantity of fruits or vegetables will thereby make an attractive display and the larger the quantity on display, the greater the invitation is, to buy.

Adjacent the front and rear edges of the bottom plate 19 are two racks or rails 21 having alternate shallow slots 22 and deep slots 23. Rods 24 are seated in the slots. The ends of the rods bear against a support 25 for the glass front 18, and the two series of slots of different depths permit of varying the relation of the rods with relation to the top, as shown in Figure 3, depending upon the nature of the merchandise displayed.

To prevent excessive chilling for certain types of perishable merchandise, the top compartment may be closed by the plates 26, which also provide an additional support for merchandise. The plates rest at their front edges on the glass wall, and each plate has an upwardly extending rim 27 at its front edge to hold merchandise in place. The plates 26 at their rear edges have downwardly projecting flanges 28 caught over the upper edge of a rear wall 29 of the case.

A sprinkler system is shown above the case, including a sprinkler pipe 30 apertured for the discharge of water onto vegetables placed on the top of the case. A hood 31 above the pipe 30 directs the water onto the merchandise.

The interior of the case has a drain opening 38 connected with the drain pipe 32 by means of a branch pipe 39. The drain 32 is likewise connected at a low point 40 of the top compartment to carry off water draining from vegetables placed on rods 24.

The partitions 33 are supported in the deep slots 23 of the two rails 21 and by moving them laterally, the widths of the sections or bins are readily varied in accordance with the requirements of the merchandise to be contained therein. The partitions extend from the top of the compartments to adjacent the bottom of the same and

in order to support them in the grooves 35 they are provided with tongues 34, as best shown in Figure 4.

The doors 11 and 12 respectively have windows 36 and 37 so that merchandise in the case can be seen without opening the doors.

The advantages of a show case of the above described construction are thought to be clearly apparent. Vegetables and fruits placed on top of the case may be cooled and simultaneously subjected to moisture which is the most effective way of keeping such perishable merchandise fresh.

The interior of the case is easily accessible to the customer through the door 11, while clerks may easily replenish the stock therein through the other door 12 without interfering with the customers.

The customer obtains a basket to be filled with the desired merchandise and slides the same along the rails 15 on the shelf 14 and onto the platform 16 of the scale to weigh the same.

The top plates 26 provide trays for the support of merchandise above the compartments and these trays may be removed to give access to merchandise displayed directly on the rods 24. By means of the transparent front wall 18 of the top and the transparent front door of the case, a customer may see all of the various kinds of merchandise displayed in and upon the show case, from any point within the store.

Changes may be made in the various features just described without departing from the spirit and scope of the invention.

What we claim and desire to secure by Letters Patent is:

1. In a show case of the character described, a display compartment having a slanting bottom, rails at opposite sides of the compartment having slots, selectively adaptable to the reception of rods or partitions, said slots opening in the upper edges thereof, rods resting in selected slots and adjustable transverse partitions having tongues in selected opposite slots of the rails.

2. In a show case, a slanting bin at the top thereof, a rack in the bin effective to space merchandise therein from the bottom of the same, and an adjustable transverse partition, and means selectively adaptable to the support of said rack or said partition, said means being constructed to support the rack at different predetermined elevations above and in substantially parallel relation to the bottom.

3. In a show case, a bin in an elevated position at the top thereof, having a forwardly slanting bottom, to effect a gravitational displacement of merchandise placed thereon, transverse partitions in the bin dividing same into compartments, and a rack comprising rods extendir across the bottom in substantially parallel relation thereto, and means selectively adaptable to the support of said rods or partitions.

4. In a show case, a bin in an elevated position at the top thereof, having a forwardly slanting bottom, to effect a gravitational displacement of merchandise placed thereon, transverse partitions in the bin dividing same into compartments, and a rack comprising rods extending across the bottom in substantially parallel relation thereto, means selectively adaptable to the support of said rods or partitions, and means to limit gravitational displacement of said rods.

5. In a show case, a bin in an elevated position at the top thereof, having a forwardly slanting bottom, to effect a gravitational displacement of merchandise placed thereon, transverse partitions in the bin dividing same into compartments, and a rack comprising rods extending across the bottom in substantially parallel relation thereto, cross rails having slots therein selectively adaptable to the reception of said rods or partitions, said cross rails extending through planes substantially normal to the plane of the slanting bottom, and means to limit gravitational displacement of said rods.

6. In a show case, a bin, and a rack in the bin for the support of merchandise, comprising slotted cross bars, the slots of which are selectively adaptable to the reception of rods or partitions, rods resting in selected slots of the cross bars, and movable partitions having portions thereof resting in other selected slots of the cross bars and dividing the bin into compartments.

7. In a show case having a slanting display top, rails at opposite sides of the top, having slots, selectively adaptable to the reception of rods or partitions, said slots, opening in their upper edges, rods resting in selected slots of the rails constituting a rack for the support of merchandise, and partitions having portions thereof resting in other selected slots of the rails dividing the top into separate bins.

8. In a show case of the character described, a display stand comprising a compartment having its floor inclined to effect gravitational displacement of articles displayed therein and having an upwardly extending rim at the lower end of the floor providing a stop for said gravitationally displaced articles, said compartment having a rack inclined in substantially parallel relation to said floor, comprising slotted cross bars, the slots of which are selectively adaptable to the reception of rods or partitions, rods resting in selected slots thereof, and a movable partition having portions thereof resting in other selected slots and dividing the bin into compartments.

9. In a show case of the character described, a display stand comprising a compartment inclined to effect gravitational displacement of articles displayed therein and having front and rear walls, and a tray seated on said walls having an upstanding rim adjacent the front wall, the tray being inclined in conformity with the inclination of the compartment and the front wall of the compartment being transparent to expose merchandise therein, said compartment having a rack inclined in substantially parallel relation to said floor, comprising slotted cross bars, the slots of which are selectively adaptable to the reception of rods or partitions, rods resting in selected slots thereof, and a movable partition having portions thereof resting in other selected slots and dividing the bin into compartments.

CHARLES E. RORRER.
ALBERT R. MITTERER.

Defendant's Exhibit E

H. C. HARVEY.

SELF-SERVING STORE.

APPLICATION FILED OCT. 16, 1918.

1,350,996.

Patented Aug. 24, 1920.

2 SHEETS—SHEET 1.

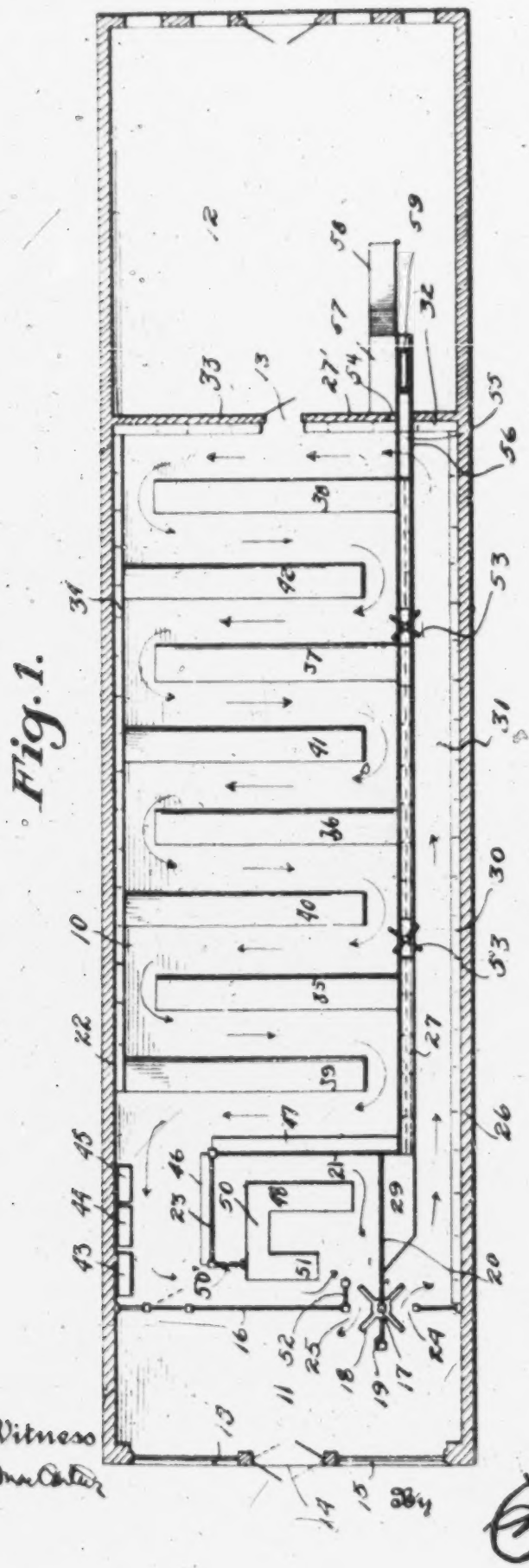

Fig. 1.

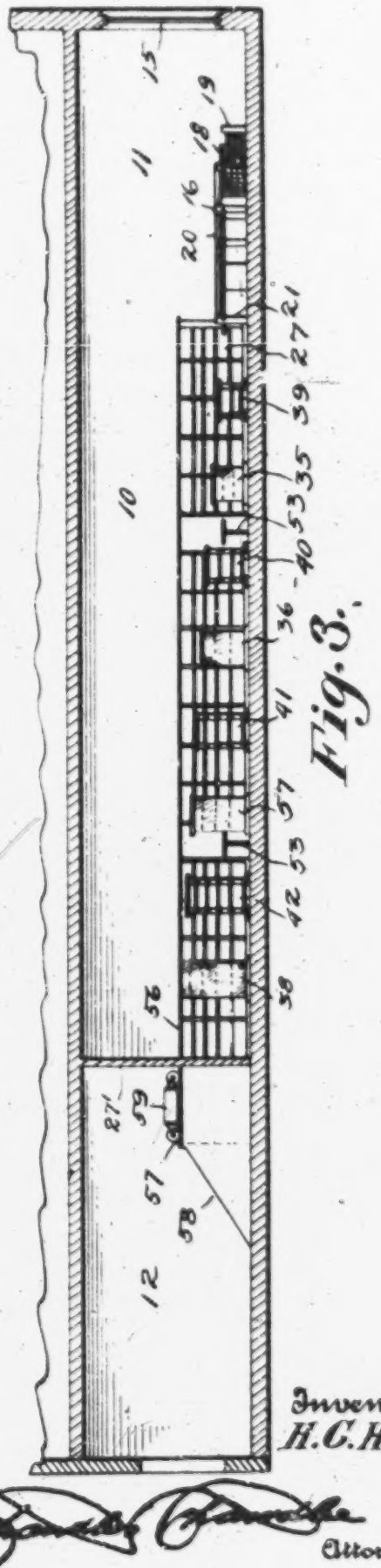

Fig. 3.

Witness

Inventor
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Defendant's Exhibit E

H. C. HARVEY.

SELF-SERVING STORE.

APPLICATION FILED OCT. 16, 1918.

1,350,996. Patented Aug. 24, 1920.

2 SHEETS—SHEET 2.

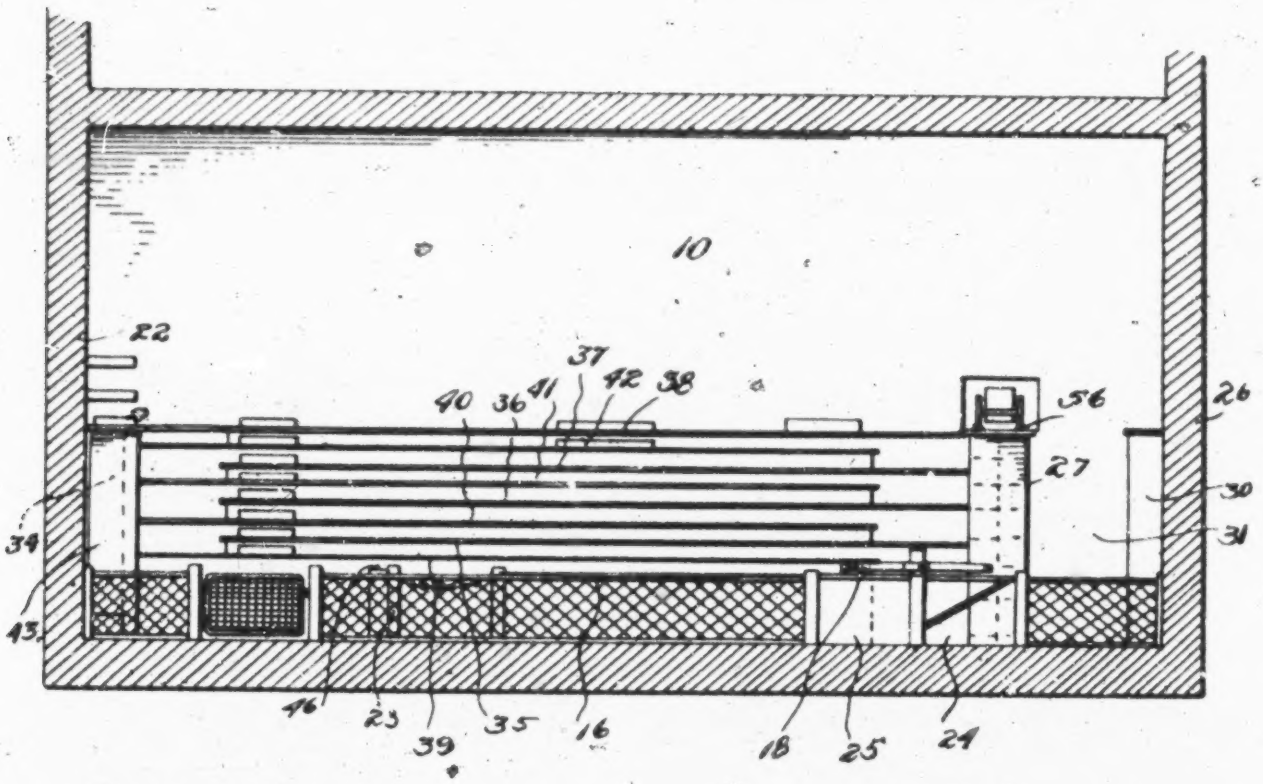

Fig. 2.

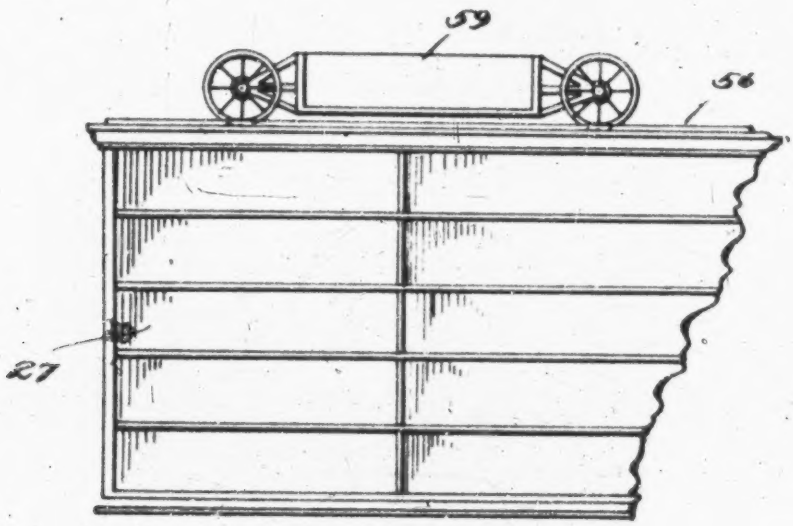

Fig. 4.

Witness

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By

Attorneys

Defendant's Exhibit E

UNITED STATES PATENT OFFICE.

HENRY C. HARVEY, OF HUNTINGTON, WEST VIRGINIA.

SELF-SERVING STORE.

1,350,996. Specification of Letters Patent. Patented Aug. 24, 1920.

Application filed October 16, 1918. Serial No. 258,346.

To all whom it may concern:

Be it known that I, HENRY C. HARVEY, a citizen of the United States, residing at Huntington, in the county of Cabell, State of West Virginia, have invented certain new and useful Improvements in Self-Serving Stores; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to merchandizing and more particularly to the arrangement and equipment of what may be termed the plant of a store.

As is well known to those familiar with the subject, the expense of selling is a very high percentage of the total cost of doing business and it is the object of the present invention to reduce this selling cost by an arrangement and equipment that will limit the attendants to a minimum number.

Specific objects of the invention include the provision of an arrangement that permits of the location of the different general classes of merchandise by the prospective customer at a distant point; also the arrangement of goods such as will permit of the spontaneous notice of the customer.

A further object of the invention is the provision of such an arrangement as will permit of restocking of the merchandise exhibitors with a minimum of labor and with despatch.

Other objects attained by the invention will be apparent from the following description.

In the drawings:

Figure 1 is a plan view showing a stock room and a sales room with its lobby correlated and equipped in accordance with the present invention.

Fig 2 is a vertical section taken transversely through the lobby and looking in the direction of the stock room.

Fig. 3 is a vertical section taken longitudinally through the entire equipment at a point between the shelving stack 46 and the cabinet 45 of Fig. 1 and looking to the right.

Fig. 4 is a detail elevation of one of the stacks and showing the truck mounted on it.

Referring to the drawings there is shown a store room including what may be termed the sales room 10 with its communicating lobby 11 and in the rear of which sales room is the stock room 12 communicating with the sales room by a doorway 13 provided with a suitable closure.

The lobby, as illustrated is at the front of the store and has the entrance doorway 14 at each side of which is a transparent front 15 which if desired may be removable or foldable as are many store fronts.

Transversely of the store and separating the lobby from the sales room is a railing 16 and near to the end of the railing at one side of the store the railing is interrupted to receive a turnstile including a central standard 17 having the usual arms 18 that radiate from a hub mounted upon the standard. From the standard forwardly beyond the sweep of the arms of the turnstile there extends a rail 19 at right angles to the railing 16 which latter it will be understood is provided with a wire or other structure extending from it to the floor.

From the post 17 of the turnstile there extends into the sales room a low partition 20 surmounted by a rail at substantially the same height as the rail 16, this partition 20 abutting a partition 21 of the same height that extends transversely of the sales room at both sides of the partition 20. That portion of the partition 21 extending from the partition 20 in the direction of the remote wall 22 of the store terminates at a low partition 23 that extends in the direction of and terminates short of the transverse rail 16 which with its lower equipment constitutes a low partition.

At opposite sides of the post 17 are the ingress and egress openings 24 and 25 through which the customers enter and leave the sales room respectively.

The portion of the partition 21 extending from the partition 20 in the direction of the near wall 26 of the store terminates against a stack of shelves 27 that extend from the partition 21 parallel with the wall 26 to near the rear wall 27' of the sales room, these stacks of shelves 27 being double faced, that is opening at both sides of the stack. The stack 27 and the adjacent portion of the partition 21 form one boundary of a basket rack 29 that extends to near the turnstile so that a customer entering through the opening 24 may take a basket from this rack to hold the goods selected in a manner hereinafter explained.

Against the wall 26 is arranged a stack

Defendant's Exhibit E

of shelves 30 between which and the stack 27 is a passageway 31 that continues to the wall 27'.

A stack of shelves 32 extends from the wall 26 to the door opening 13 in the rear wall 27' of the sales room while a stack of shelves 33 extends from the doorway 13 to the wall 22, both of these last named stacks being against the wall 27'. A stack of shelves 34 is disposed against the wall 22 and extends from the shelves 33 to near the partition 16.

From the stack 27 there extend in the direction of and at right angles to the wall 22, merchandise exhibitors 35, 36, 37, and 38 which terminate short of the stack of shelving 34 to afford a passage and alternating with these merchandise exhibitors are other similar exhibitors 39, 40, 41, and 42 that extend from the stack of shelving 34 in the direction of and terminating short of the stack 27. These last named series of exhibitors are therefore in staggered relation and they are spaced apart sufficiently to permit of ready movement of customers between them and between their free ends and the opposite shelving stack.

The foremost exhibitor 39 is of a height to permit a view of it from the lobby 11 over the intervening equipment and the succeeding exhibitors are each slightly higher than the preceding one, progressing toward the rear of the sales room so that a customer in the lobby 11 may see the upper portions of all of these exhibitors to note the signs with which they are equipped and which indicate the classes of merchandise exhibited on them and to see the goods displayed upon the upper shelves.

Between the partition 23 and the wall 22 are arranged a refrigerator 43, a meat cabinet 44, and a bread cabinet 45, although it will be understood that cabinets or exhibitors for other commodities may be substituted. These cabinets are spaced from an exhibitor 46 disposed against the partition 23 and between it and the wall 22, which exhibitor may constitute a vegetable rack in the event the equipment is employed for a correlated class of store. Also a shelf or other type of exhibitor 47 is disposed along the rear face of the partition 21.

Extending from the partition 20 toward but terminating short of the partition 23 is a cashier's counter comprising a section 48 that is spaced from the partition 21 and parallel to it. Thence it extends forwardly as shown at 50 and is then returned parallel to and spaced from the rail 16 as shown at 51, this latter portion terminating short of the rail 52. The portion 50 of the counter at its forward end is connected with the partition 23 by a chain or other removable barrier 50'.

In operating this sales equipment, the customer enters the lobby and having taken a view of the signs on the different exhibitors, both the transversely extending ones and the longitudinally extending ones, he passes through the entrance 24, which is permitted by the turnstile that operates in this one corresponding direction. A basket is selected from a rack 29 and the customer makes his way through the passage 31. If the desired commodity is at the rear of the sales room he continues down the passage 31 to the rear and then passes between the staggered exhibitors to the location of the article wanted. He may then continue to the front of the store selecting such additional articles as may suit his fancy and finally passing across to the cashier's counter where payment for the articles is made. He then passes out through the turnstile. The price of each article is marked plainly on it so that the customer knows its cost and so that the cashier may readily determine the total.

If the article or articles desired are located toward the front of the sales room, the customer may pass from the passageway 31 to the circuitous passageway between the staggered exhibitors through one of the turnstiles 53 formed through the shelving stack 27 and opening from the passage 31 to the circuitous passage in the direction of progress through the circuitous passage toward the front of the store. Thus the entry through a turnstile 53 to the circuitous passage will be with and not against the stream.

It will of course be understood that the customer may enter without having first located from the lobby the article or articles desired and may pass from one part of the sales room to another in search of such articles as may strike the fancy.

To facilitate restocking of the various merchandise exhibitors, an opening 54 is formed in the transverse partition 27 at a height above the heads of the customers and a bridge 55 is extended from this opening to the shelving stack 27 and with the said stack, carries track rails 56 that extend from the forward end of the stack 27 across the bridge through the opening 54 and into the stock room 12 into which the bridge likewise projects to carry the rails. Beside the portion of the bridge that projects into the stock room is a loading platform 57 provided with a runway 58 to facilitate the bringing of merchandise onto the platform from which it is lifted onto a wheeled truck 59 disposed upon the trackway and designed for moving throughout the length of the latter. The truck with its load of merchandise is pushed or operated mechanically by gravity to the proper point of the length of the shelving stack 27 and being stopped, its contents are removed in whole or in part and transferred to the proper exhibitors.

The stack 27 thus serves not only to exhibit the merchandise but to carry the merchandise-distributing system and it will be understood of course that the truck may be stopped in any place most convenient for unloading.

It will be noted that the shelving stacks 27 and 34 form lateral barriers alternately at opposite ends of the transverse exhibitors but it will be understood that unshelved partitions or walls may in some instances be advantageously substituted.

While the rail 16 has been illustrated as low so that what lies behind it may be clearly seen, in Fig. 2, it will of course be understood that this rail and the underlying grating may have any desired height.

It will be understood that when the trade in the store is such that one cashier may attend to the customers the chain 50′ is extended as illustrated and the customers all pass between the portion 51 of the counter and the rail 16. When, however, the business requires more than one cashier, additional cashiers may stand behind other portions of the counter and the chain 50′ disengaged at one end to permit it to hang so that the customers may pass between the counter and the partitions 23 and 21 as indicated.

What is claimed is:

1. A merchandizing apparatus having a series of parallel merchandise exhibitors staggered laterally of the series, the successive exhibitors increasing in height with a resultant possible view of the upper portions of all of them throughout their lengths, from a common point in a direction at right angles to the exhibitors, whereby to display from such common point the characters of goods contained by the exhibitors.

2. A merchandizing apparatus having a series of merchandise exhibitors having barriers arranged alternately at their opposite ends with a resultant circuitous passage, a lobby with respect to the view from which the exhibitors are arranged at right angles and with which lobby one end of the passage communicates, a passage-way leading from the other end of the circuitous passage to the lobby adjacent to the first named end of the circuitous passage and a single means for limiting the lobby-communicating end of the circuitous passage to egress and the lobby-communicating end of the passage-way to ingress.

3. A merchandizing apparatus comprising a sales room and a lobby, the sales room having a series of merchandise exhibitors and barriers at alternate opposite ends of the exhibitors with a resultant circuitous passage, a passage-way leading from the lobby to the remote end of the circuitous passage, a cashier's department communicating with the opposite end of the circuitous passage and with the lobby and a single means for permitting egress only between the cashier's department and the lobby and for permitting ingress only between the lobby and the said passage-way communicating therewith.

4. A merchandizing apparatus including separate compartments, one of the compartments having a merchandise exhibitor, additional merchandise exhibitors in juxtaposition to the first exhibitor, a trackway extending from the other compartment and traversing and supported upon the first named exhibitor and a merchandise truck mounted upon and movable over the trackway.

5. A merchandizing apparatus comprising separate compartments, one of the compartments having a merchandise exhibitor extending in the direction of the other compartment, a trackway extending from within said other compartment and traversing said exhibitor and supported thereon, and additional exhibitors at opposite sides of the first named exhibitor and in juxtaposition thereto.

6. A merchandizing apparatus comprising separate compartments, one of the compartments having a merchandise exhibitor extending in the direction of the other compartment, a trackway extending from within said other compartment and traversing and supported upon said exhibitor, and additional exhibitors at opposite sides of the first named exhibitor and in juxtaposition thereto, the exhibitor at one side of the first named exhibitor extending parallel throughout the length of the former and the exhibitors at the other side of the first named exhibitor being mutually parallel and at angles to the first named exhibitor.

7. A merchandizing apparatus comprising separate compartments, one of the compartments having a merchandise exhibitor extending in the direction of the other compartment, a trackway extending from within said other compartment and traversing said exhibitor, additional exhibitors at opposite sides of the first named exhibitor and in juxtaposition thereto, the exhibitor at one side of the first named exhibitor extending parallel throughout the length of the former and the exhibitors at the other side of the first named exhibitor being mutually parallel and at angles to the first named exhibitor and alternately spaced therefrom.

In testimony whereof I affix my signature in the presence of a witness.

HENRY C. HARVEY.

Witness:

J. A. MORIARTY.

[fol. 475] Defendant's Exhibit F

Prior art not cited by the Patent Office against The Turnham Patent.

M. Marios Patent No. 1,654,692.
C. F. Varnum Patent No. 1,725,494.
A. R. Dickinson Patent No. 1,115,911.
E. Arnold Patent No. 1,708,407.
C. E. Rorrer, *et al.*, No. 1,873,852.
F. Myers Patent No. 1,832,410.
H. S. Greenberg Patent No. 1,384,191.
J. T. Anderson Patent No. 1,788,759.
L. F. Clerc Patent No. 2,096,959.
C. W. Butler Patent No. 1,703,987.
H. Knudsen Patent No. 577,688.
E. P. Dandridge Patent No. 1,380,886.
O. F. Groves Patent No. 379,780.
A. S. Morsa Patent No. 1,700,443.
E. R. Walker Patent No. 1,784,403.
C. F. Wolters Patent No. 1,953,900.
A. M. Bunn Patent No. 1,558,234.

Defendant's Exhibit F.

423

Jan. 3, 1928.

1,654,692

M. MAROIS

CASHIER PROTECTION DEVICE

Filed May 11, 1926

2 Sheets-Sheet 1

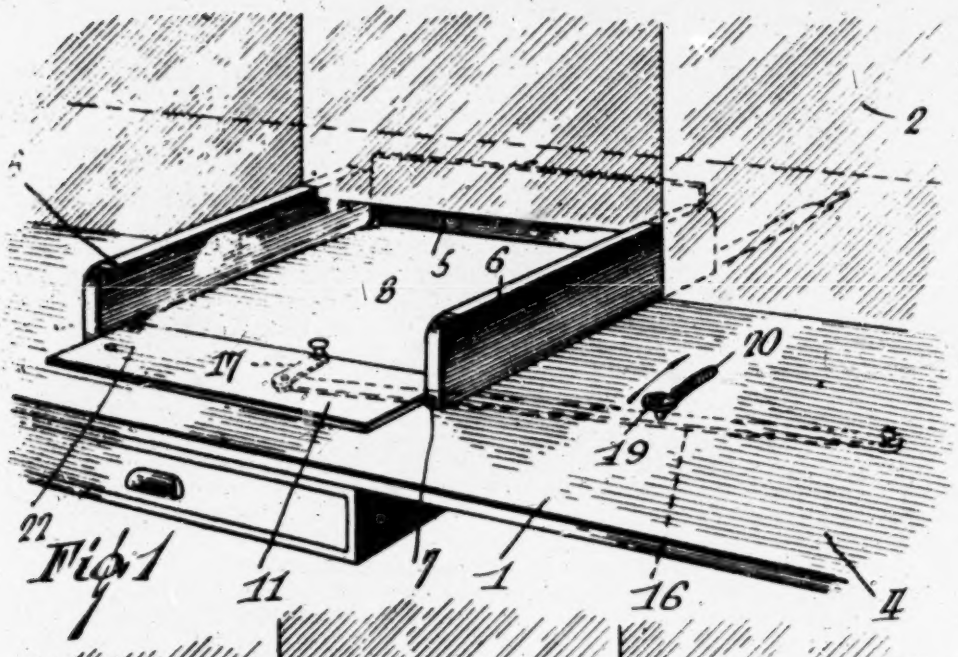

Fig. 1

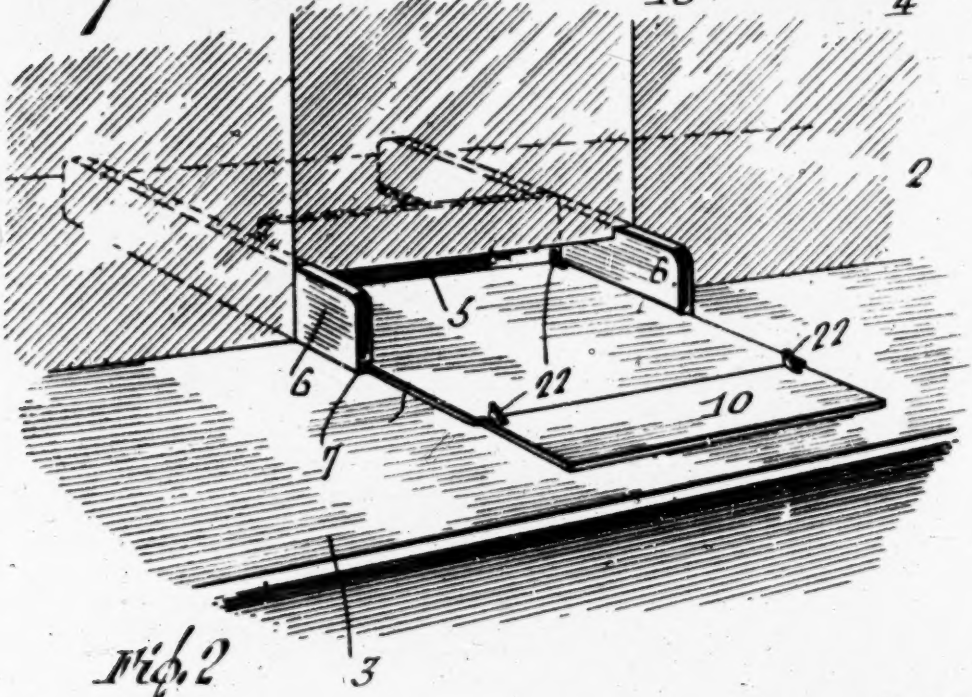

Fig. 2

Inventor

Maurice Marois

By Marion & Marion

Attorney

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Defendant's Exhibit F

Jan. 3, 1928. 1,654,692

M. MAROIS

CASHIER PROTECTION DEVICE

Filed May 11, 1926 2 Sheets-Sheet 2

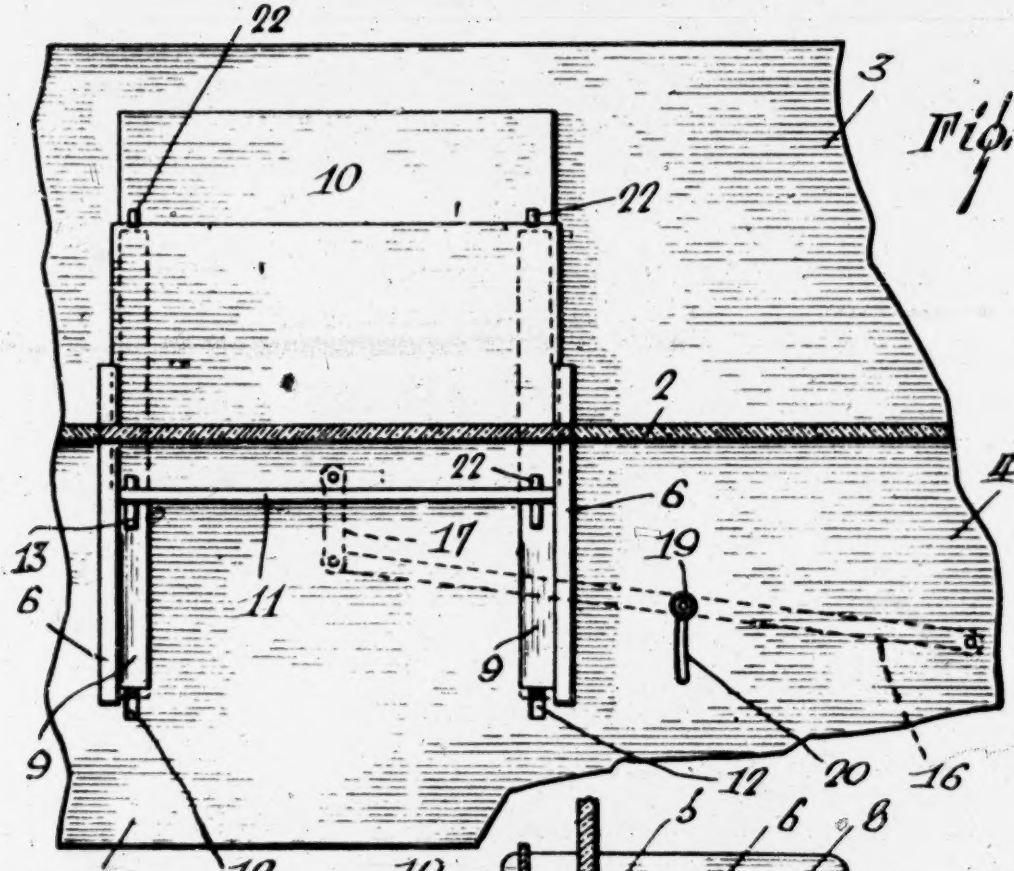


Fig. 3

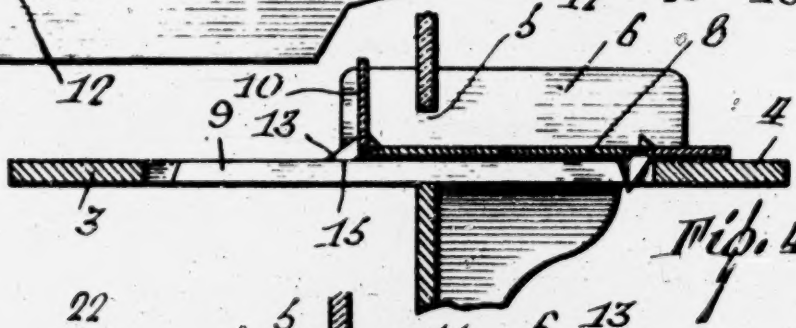


Fig. 4

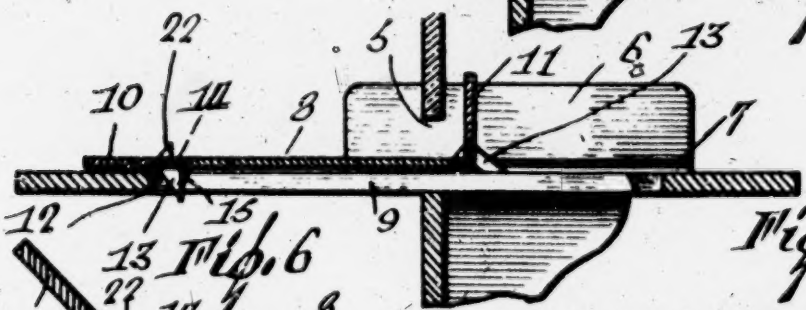
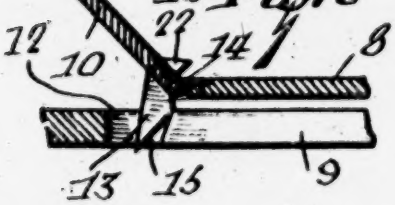


Fig. 5

Fig. 6



Inventor

Maurice Marois

By Marion & Marion

Attorney

Defendant's Exhibit F

Patented Jan. 3, 1928. 1,654,692

UNITED STATES PATENT OFFICE.

MAURICE MAROIS, OF ST. EUSTACHE, QUEBEC, CANADA.

CASHIER-PROTECTION DEVICE.

Application filed May 11, 1926. Serial No. 108,480.

The present invention pertains to a novel device for protecting a cashier, clerk or teller in a bank, office or the like.

The principal object of the invention is the provision of a device of this character constructed in such a manner as to obstruct the teller's counter from the reach of the customer. In the accomplishment of this object, a bullet-proof window is mounted upon the counter in such a manner as to divide the same into a cashier's section and a customer's section. The lower edge of the window is formed with an opening of only sufficient height to permit objects to be moved therethrough. A slide is mounted on the counter and is movable through the opening for the purpose of transporting articles from one side of the window to the other. The ends of the slide are provided with hinged flaps constructed to raise automatically and obstruct the opening when approaching the latter. Whether the slide is moved to the cashier's or customer's section of the counter, one of the flaps obstructs the opening and at all times avoids direct access from the customer's side to the casbier's side, except by means of the slide.

The invention is fully disclosed in the following description and in the accompanying drawings in which;

Figure 1 is a perspective view of the device at the inner side of the window;

Figure 2 is a perspective view of the device at the outer side of the window;

Figure 3 is a plan view;

Figure 4 is a fragmentary vertical section showing the device closed at the outer side of the window;

Figure 5 is a similar section showing the device closed at the inner side of the window; and

Figure 6 is a detail vertical section showing the operation of the flaps.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The device of the invention is constructed upon a counter 1 such as that used in banks, offices and the like. Upon the counter is erected a bullet-proof window 2 dividing the counter longitudinally into an outer section 3 on the customer's side and an inner section 4 for the clerk or teller. At the clerk or teller's station, the window is formed at its lower edge with an opening 5.

Adjacent the side edges of the opening, guides 6 are mounted on the counter, lying partly on both sections 3 and 4 thereof. The guides are grooved as at 7 to permit a slide 8 to move therein along the surface of the counter from one section to the other. Beneath the longitudinal edges of the slide, metallic wearing plates 9 are inserted in the surface of the counter in order to prevent the wood from wearing away by the rubbing of the slide.

At the ends of the slide are pivoted flaps 10 and 11 as clearly shown in Figures 4, 5 and 6. Recesses 12 are formed in the surface of the counter at the ends of the plates 9 for the purpose of co-operating with trips 13 secured to the outer faces of the flaps near the hinges 14 thereof. One of the edges 15 of each trip is perpendicular to the plane of the counter. When the trip is in the recess as shown in Figures 4 and 5, it is lowered, and is raised in moving out of the recess at illustrated in Figure 6. After the trip has been completely thrown out of the recess, the face 15 slides on the plate 9 and maintains the flap perpendicular to the slide 8.

A link 16 is pivoted to the counter at a point adjacent the slide and is connected to the latter by a link 17. The lever carries at an intermediate point a knob 19 which is movable in a curved slide 20 cut in the counter. By means of this knob the lever may be turned on its pivot to move the slide in the opening 5.

The inner face of each flap is provided with a rest 22 near the hinge 14 in order to prevent the flap from dropping upon the slide after the trip has been moved out of the recess.

The operation of the device is as follows: While the clerk is handling money or other valuable articles, the slide is drawn inwardly as in Figures 1 and 5 whereby opening 5 is obstructed by the forward flap 11. When a delivery is to be made to the customer, the money or other article is placed on the slide which is now moved outwardly towards the customer until reaching its limit. At this time the flap 10 is raised beside the opening 5, as in Figures 2 and 4, thereby obstructing the teller's portion of the counter from the reach of the customer. If the customer wishes to deliver an article to the teller, he places it on the slide at this time, and the teller draws it in-

wardly by the means already described. In this manner, the teller's section of the counter is obstructed at all times from the reach of persons at the customer's side of the window.

While a specific embodiment of the invention has been illustrated and described, it is to be understood that various alterations in the details of construction may be made without departing from the spirit of the invention as indicated by the appended claims.

Having thus fully described the invention, what I claim as new and desire to protect by Letters Patent is:—

1. In a cashier protecting device including a counter and a window provided with an opening, a slide adapted for movement through the said window opening, flaps pivotally connected with the ends of the slide, and means for automatically raising or lowering the flaps at predetermined positions of the slide.

2. In a cashier protecting device including a counter and a window formed with an opening, a slide member adapted for movement through the window opening, flaps pivotally connected with the ends of the slide, and means for automatically operating the flaps to open or window obstructing position at predetermined positions of the slide.

3. In a cashier protecting device including a horizontal support counter and a window in the counter provided with an opening, a slide member adapted for slidable movement on the surface of the counter through the window opening, flaps pivotally connected with the ends of the slide adapted to assume lowered positions co-extensive with the slide or elevated window obstructing positions, and means for automatically swinging the flaps to suitable positions at predetermined positions of the slide.

4. In a cashier protecting device including a counter and a window provided with an opening above the counter, a flat slide adapted to be slidably actuated on the counter through the window opening, a pair of flaps hingedly connected with the ends of the slide operable to assume horizontal positions co-extensive with the slide and vertical positions adapted to obstruct the window, and means operably associated with the flaps and counter whereby the flaps will be automatically swung to proper positions during the movement of the slide.

5. A slide for a cashier's window comprising a flat slide member adapted to be slidably actuated through the window opening and on the window counter, a pair of flaps hingedly connected with the inner and outer ends of the slide, and means for automatically raising and lowering the said slide in predetermined positions of the slide.

6. A slide for a cashier's window comprising a flat slide member adapted to move slidably in the window counter and through the window opening, a pair of flaps hingedly connected to the ends of the slide member adapted to assume raised positions obstructing the window and lowered positions co-extensive with the slide, and means carried by the flaps adapted to automatically raise and lower the flaps in predetermined positions of the slide.

7. A slide for a cashier's window comprising a flat slide member adapted to be slidably actuated on the window counter and through the window opening, a pair of flaps hingedly connected with the ends of the slide operable to assume lowered positions co-extensive with the slide and raised positions at right angles to the slide, mechanism for slidably actuating the slide member, and means for automatically raising and lowering the flaps at predetermined positions of the slide.

8. A slide for a cashier's window comprising a flat slide member adapted to be slidably actuated on the window counter and through the window opening, a pair of flaps hingedly connected with the ends of the slide operable to assume lowered positions co-extensive with the slide and raised positions at right angles to the slide, and mechanism for slidably actuating the slide member, said mechanism comprising trip members secured to the inner edges of the flaps engageable with recesses in the counter to operate the flaps.

In witness whereof I have hereunto set my hand.

MAURICE MAROIS.

Defendant's Exhibit F

Aug. 20, 1929. C. F. VARNUM 1,725,494

POOL BALL RACK

Filed March 7, 1928

FIG. 1

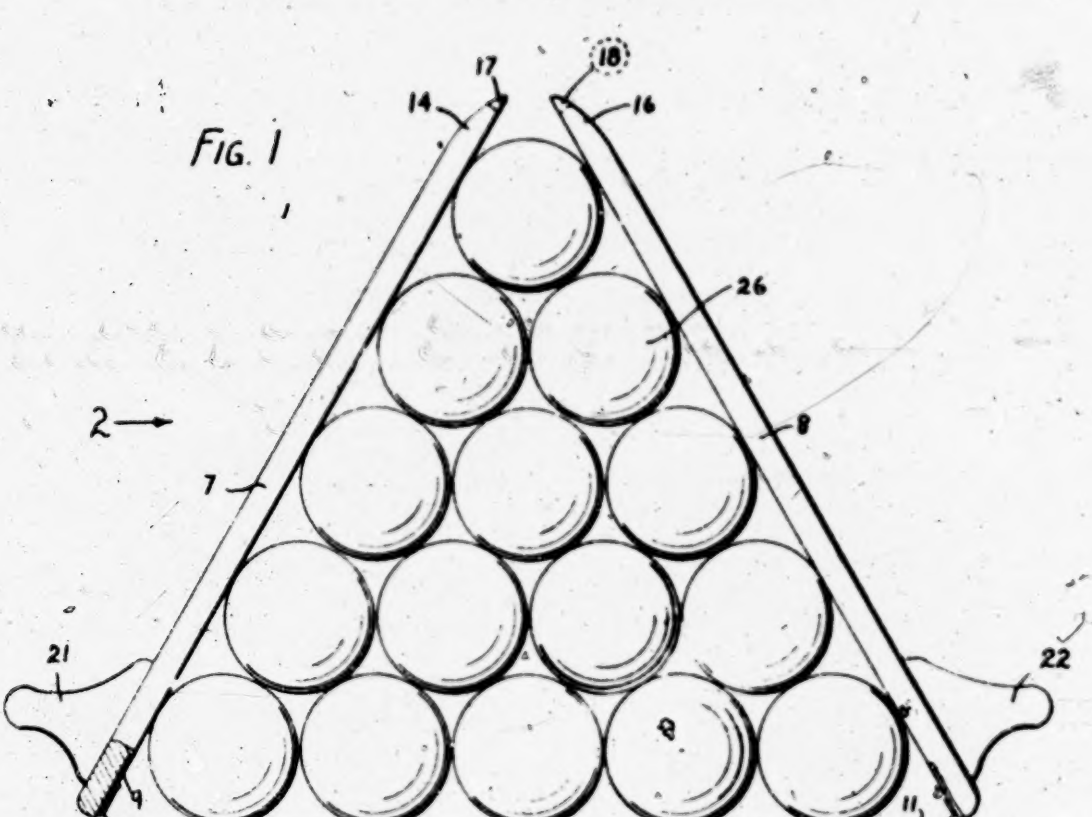


FIG. 2

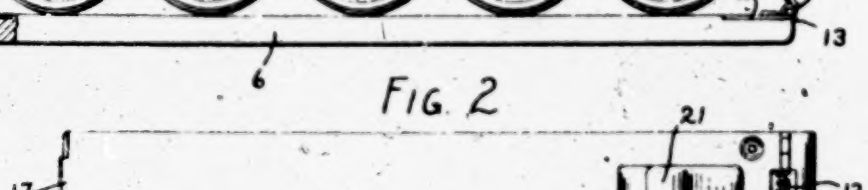
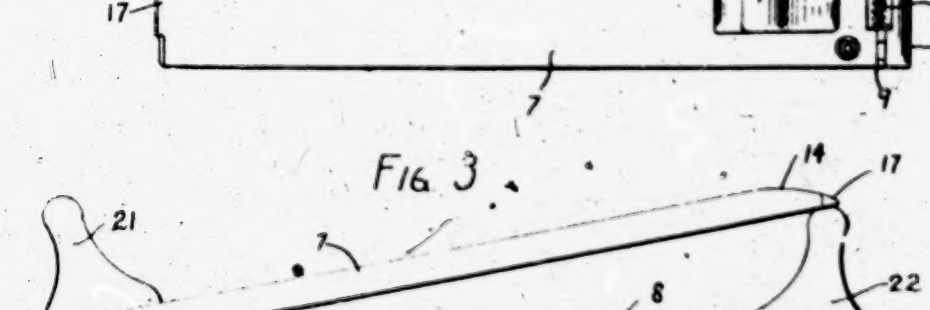


FIG 3



INVENTOR
CARROL F. VARNUM
BY Hazard and Miller
ATTORNEYS

Defendant's Exhibit F

Patented Aug. 20, 1929. 1,725,494

UNITED STATES PATENT OFFICE.

CARROL F. VARNUM, OF GLENDALE, CALIFORNIA

POOL BALL RACK

Application filed March 7, 1928. Serial No. 259,821.

This invention relates to games, and more particularly to an improved triangle or frame for properly positioning pool balls in accordance with the usual practice at the beginning of the game.

An object of the invention is the provision of an improved type of pool ball positioning frame adapted to quickly and accurately position the fifteen balls used in the game of pool, in pyramidal or triangular arrangement.

Another object is the provision of a positioning frame of the character described, in which two side members are hinged to a base member at its opposite ends, so that by positioning the side members with their free ends in contact, a triangle may be formed.

Another object is the provision of a triangle constructed as described, in which a spring is associated with each of the pivotal mountings, urging the side members inwards towards the base member so that when all of the fifteen balls are gathered in between the base member and two side members, the triangle will tend to automatically position the balls in proper pyramidal arrangement.

A further object is the provision of a hingedly-connected positioning frame, in which the side members are slightly shorter than the base member, permitting the frame to be folded compactly when out of use.

With the foregoing and other objects in view which will be made manifest in the following detailed description and specifically pointed out in the appended claims, reference is had to the accompanying drawings for an illustrative embodiment of the invention, wherein:

Figure 1 is a top plan view of my improved pool ball positioning frame in operation, showing the manner in which the fifteen pool balls are pyramided thereby.

Fig. 2 is a side elevation of the frame, the direction of view being indicated by the arrow 2 of Fig. 1.

Fig. 3 is a top plan view of the triangle of Fig. 1, after the balls have been removed and the triangle collapsed.

In terms of broad inclusion, the pool ball rack or frame of my invention, comprises a base having a side member hinged to each end thereof, making it possible to use the device to gather in the fifteen balls ordinarily used in the game of pool, and then by bringing the free ends of the side member together, pyramiding the balls in the conventional arrangement. When the balls have thus been pyramided and properly positioned upon the pool table, the side members may then be swung outwards on their hinged mountings, and the frame removed from the balls without disturbing them from their accurate arrangement. Another feature associated with this type of positioning frame, is the fact that the balls may be more accurately positioned in relation to each other, than with the conventional rigid type of positioning frame. The rigid type of frame is necessarily somewhat larger than the triangle described by the pyramided balls, to enable the balls to be placed therein with ease. Therefore, it is obvious that after the frame has been removed, each of the balls will not be in actual contact with all of its neighboring balls as is the case with my improved rack in which the balls are squeezed together until actual contact is made between everyone of the balls.

In its preferred embodiment, the device of the present invention comprises a base member 6 having side members 7 and 8, hinged to opposite ends thereof by the hinges 9 and 11 respectively. A coil spring 12 and 13 is incorporated with each of the hinges 9 and 11 respectively, urging the free ends 14 and 16 of the side members 7 and 8 respectively, toward the opposite ends of the base member 6.

A tongue 17 is provided upon the free end 14 of the side member 7, and a complementary groove 18 is provided upon the free end 16 of the side member 8, wherein the tongue 17 may be releasably seated to retain the frame in the form of an isosceles triangle. The side members 7 and 8 are provided with handles 21 and 22 respectively, to facilitate use of the triangle.

The side members 7 and 8 are preferably of the same length and slightly shorter than the base member 6, as clearly shown in Fig. 3. The proportionate size and arrangement of parts is such that when the fifteen balls 26, ordinarily used in the game of pool, are pyramided within the frame as shown in Fig. 1, the free ends 14 and 16 of the side members 7 and 8 are separated a short distance.

In using the pool ball rack of my invention, it is manipulated by grasping the handles 21 and 22 and separating the sides 7 and 8 against the action of the springs 12 and 13. The rack may then be used as a scoop,

by sliding it over the surface of the pool table to gather in the balls 26. When all fifteen balls have thus been gathered in, the sides 7 and 8 should be permitted to turn upon their hinges 12 and 13 toward each other, urging the balls 26 together and collecting them in the form of a triangle or pyramid, in accordance with the rules of the game. The collected balls 26 and frame are then moved across the table to position them properly for the start of the game, after which the sides 7 and 8 may be separated to permit removal of the frame without disturbing the accurate arrangement of the balls 26. It will be found that after being so arranged, each of the balls 26 will be in actual contact with all of its neighboring balls, which is frequently not the case when using the conventional type of pool ball rack which is necessarily slightly larger than the triangle described by the pyramided balls.

Various changes in the details of construction may be made without departing from the spirit and scope of the invention as defined by the appended claims.

I claim:

1. A pool ball positioning frame comprising a base member and a side member hinged to each end of said base member, a spring associated with each side member urging the free end thereof toward the opposite end of the base member, said side members being of the same length and shorter than the base member, and a tongue on the free end of one of said side members adapted to be releasably seated within a complementary groove in the free end of the other side member to hold the frame in the form of an isosceles triangle.

2. A pool ball positioning frame comprising a base member and a side member hinged to each end of said base member, and a spring associated with each side member urging the free end thereof toward the opposite end of the base member, said side members being of the same length and shorter than the base member.

3. A pool ball positioning frame comprising a base member, side members hingedly connected to the ends of the base member, and means for yieldably urging said side members toward each other whereby said side members will urge balls positioned in the frame against the base member thus forming a triangle of balls.

4. A pool ball positioning frame comprising a base member and side members hingedly connected to the base member, said side members being shorter than the base member whereby when a predetermined number of balls are within the frame the forward ends of the side members will be spaced from each other to facilitate properly positioning the foremost ball on a spot.

5. A pool ball positioning frame comprising a triangular frame adapted to form a plurality of balls placed therein into a triangle, said frame having an opening in its forward end extending from top to bottom thereof to facilitate properly positioning the foremost ball upon a spot.

6. A pool ball positioning frame comprising a base member, side members extending forwardly from the base member, at least one of said side members being hingedly connected to the base member so that its angular relation with respect to the base member may be varied and spring means urging the mentioned side member toward the other side member.

In testimony whereof I have signed my name to this specification.

CARROL F. VARNUM

Defendant's Exhibit F

A. R. DICKINSON.

POOL BALL FRAME.

APPLICATION FILED APR. 25, 1914.

1,115,911. Patented Nov. 3, 1914.

FIG. 1.

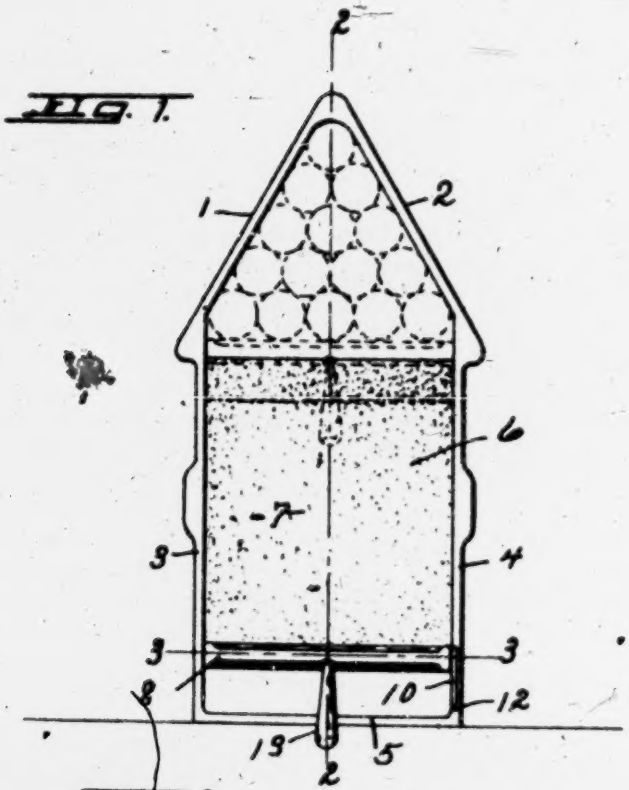


FIG. 2.

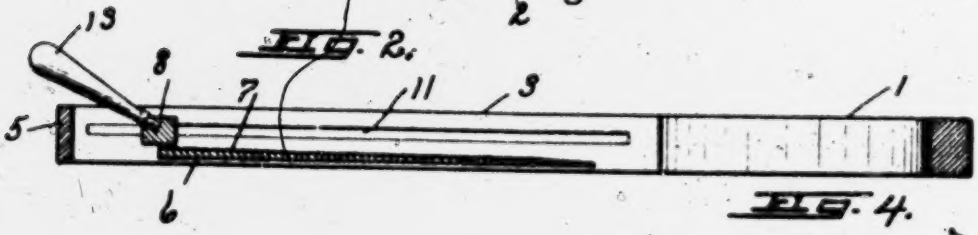


FIG. 4.

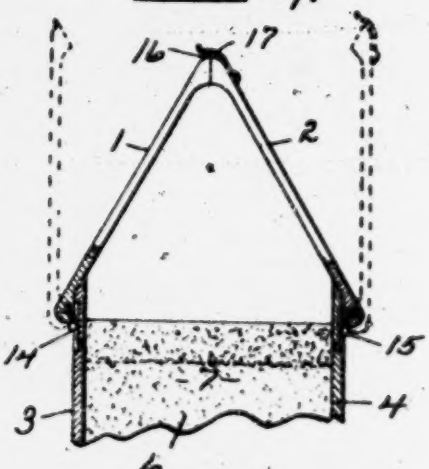
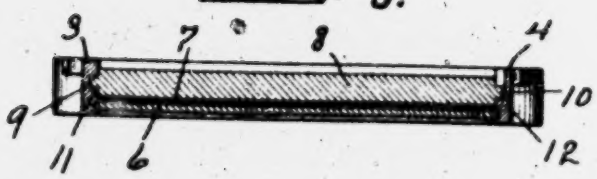


FIG. 3.



WITNESSES:
H. Hurst.
H. E. Chase

Austin R. Dickinson INVENTOR
BY Howard P. Denison
ATTORNEY.

Defendant's Exhibit F

UNITED STATES PATENT OFFICE.

AUSTIN R. DICKINSON, OF SYRACUSE, NEW YORK.

POOL-BALL FRAME.

1,115,911. Specification of Letters Patent. Patented Nov. 3, 1914.

Application filed April 25, 1914. Serial No. 834,420.

To all whom it may concern:

Be it known that I, AUSTIN R. DICKINSON, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Pool-Ball Frames, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements in pool ball frames for setting up or racking pool balls in pyramidal form upon a table.

The primary object of the invention is to provide in combination with a movable cross rail or bar, a suitable platform having a felt or other similar covering adapted to receive the balls in the initial operation of setting them up, to avoid the necessity of placing them directly upon the table, rolling them around to get them in proper position and the damage resulting from the usual dropping of the balls within the frame.

A further object is to form this platform in connection with suitable parallel extending side bars, forming extensions of the side rails of the pyramidal front portion of the frame, and spaced apart throughout their length a distance substantially equal to the width of the base of the pyramidal portion of the frame, and of sufficient length so that when the bar connecting the rear end of the side bars, is in contact with the end wall of the table, the balls positioned within the pyramidal portion of the frame will be spaced the proper distance from the end wall of the table without the necessity of moving the frame and balls around upon the table with the resulting wear upon the cloth and without the necessity of guessing at the particular position of the "spot", thereby insuring the player that the balls are in exactly the same position each time.

In the drawings Figure 1 is a top plan view of the frame. Fig. 2 is a cross section on line 2—2, Fig. 1. Fig. 3 is a cross section on line 3—3, Fig. 1. Fig. 4 is a top plan view partially in section of a portion of a frame of slightly modified construction.

The invention comprises a frame formed of a pair of side rails —1— and —2— constituting the sides of an equilateral triangle and of suitable length to inclose the desired number of pool balls, and a pair of side bars —3— and —4— connected respectively to the rear ends of the side rails —1— and —2— and extending rearwardly in planes substantially parallel with each other and having their rear ends connected by a suitable cross bar —5—. The side bars —3— and —4— are of sufficient length so that when the cross bar —5— rests against the end wall of a table, the ball located in the apex formed by the meeting of the rails —1— and —2— is positioned the exact proper distance from the end wall of the table so that when the frame is properly adjusted laterally this ball rests exactly upon the "spot", and this proper lateral adjustment of the frame may be accurately predetermined by marking the central portion of the cross bar —5— and bringing this mark into exact registration with the center diamond found on all tables. By this construction it is not necessary to move the frame around upon the table after the balls have been placed therein, thereby destroying the table covering and furnishing an uneven and irregular surface preventing accurate movement of the balls, and the player is assured that the balls are in exactly the same position each time.

A suitable platform —6— having a felt or other covering —7— is positioned between the side bars —3— and —4— and may be secured thereto in any suitable manner and preferably lies in a plane somewhat above the plane of the lower edge of the side bars —3— and —4—, and preferably tapers toward its front edge —7— so that the balls will roll gradually from the platform into the pyramidal front portion of the frame. In use the frame is placed upon the table in proper position and the balls are laid upon the felt covered platform —6— and are then forced forwardly by any suitable means into the pyramidal front portion of the frame formed by the side rails —1— and —2—, and for this purpose a suitable movable cross wall or bar —8— is provided having tenons —9— and —10— at its respective ends slidably mounted in grooves or mortises —11— and —12— formed in the rails —3— and —4— respectively, and these grooves —11— and —12— are of sufficient length so that the cross wall —8— may lie to the rear of the platform —6— and may be pushed forwardly to form the base of the pyramidal portion of the frame and with the side rails —1— and —2— form an equilateral triangle for properly racking the balls in "frozen" position and this wall

—8— is provided with a suitable obliquely projecting handle —13— for moving the wall back and forth.

The operation of the device is as follows: The frame is properly positioned upon the table, the cross wall —8— is drawn toward the rear of the platform —6—, the pool balls are placed upon this platform, the cross wall is pushed forwardly to force the balls into the pyramidal front portion of the frame, the cross wall is then slightly withdrawn from the balls and the frame may then be raised without interfering with the relative contact of the balls with each other.

In Fig. 4, a slightly varied form of the invention is shown in that the side rails —1— and —2— are secured to the side bars —3— and —4— respectively by means of suitable hinges —14— and —15—, respectively, so that the side rails may be spread and withdrawn from contact with the balls so that the frame may be removed without liability of interfering with the relative contact of the balls with each other, and for normally holding the side rails in proper position for racking the balls, one of the rails, as —1—, is provided with a projecting stud —16— and the other rail, as —2—, with a spring member —17— adapted to engage the stud and frictionally hold the rails in proper position for racking the balls, and they may then be spread apart and the frame withdrawn without in any manner interfering with the relative positions of the balls.

It will be readily apparent that although I have shown and described a particular form of the invention, that many changes may be made in the details of construction, form and arrangement of the parts without departing from the spirit of the invention as set forth in the appended claims.

What I claim is:

1. A device for setting up pool balls comprising a frame having a platform for temporarily supporting the balls, and guide rails converging forwardly from opposite sides of the front end of the platform for stacking the balls when rolled from the platform.

2. A device for setting up pool balls comprising a frame having a platform for temporarily supporting the balls, guide rails converging forwardly from opposite sides of the front end of the platform for stacking the balls when rolled from the platform, and means movable along the frame for impelling the balls from the platform between the converging guide rails.

3. A device for setting up pool balls comprising a frame having a platform having a forwardly declining upper face and guide rails converging forwardly from opposite sides of the front end of the platform.

4. A device for setting up pool balls comprising a frame having a triangular opening in its front end and a platform at the rear of the opening.

5. A device for setting up pool balls comprising a frame having a triangular opening in its front end, a platform at the rear of the opening, and means guided on the frame for impelling the balls from the platform into the opening.

In witness whereof I have hereunto set my hand this 24th day of April, 1914.

AUSTIN R. DICKINSON.

Witnesses:
H. E. CHASE,
EVA E. GREENLEAF.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

Defendant's Exhibit F

April 9, 1929. E. ARNOLD 1,708,407

GROCERY STORE APPLIANCE

Filed April 27, 1928 2 Sheets-Sheet 1

Fig. 1.

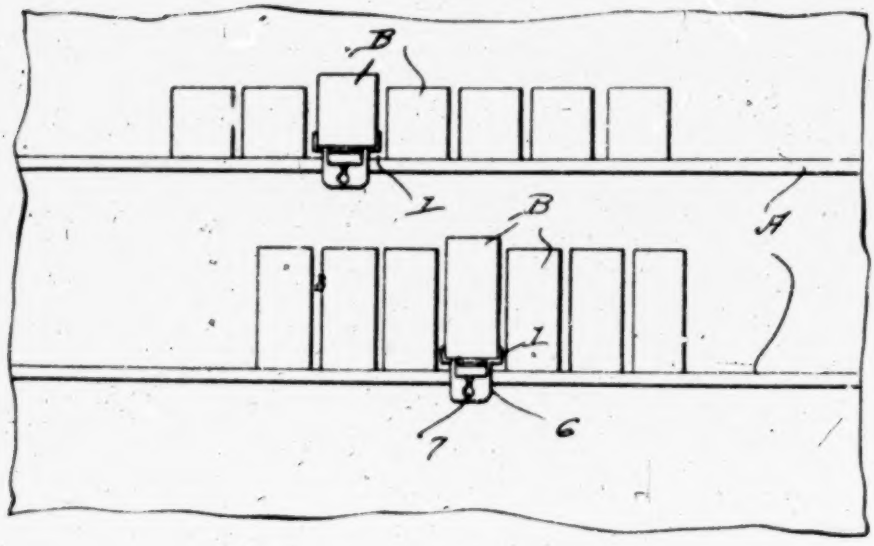


Fig. 3.

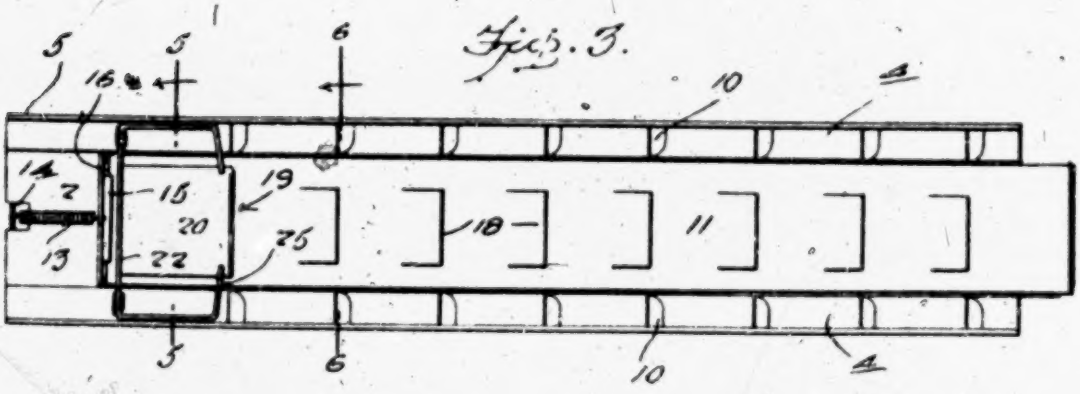


Fig. 6

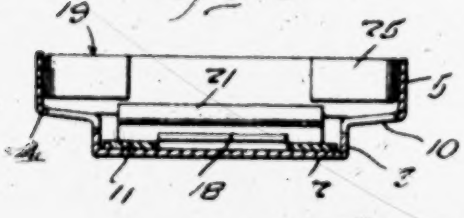
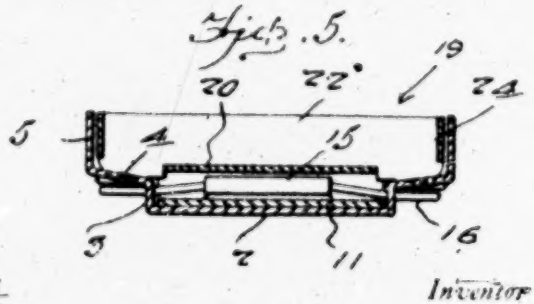


Fig. 5.



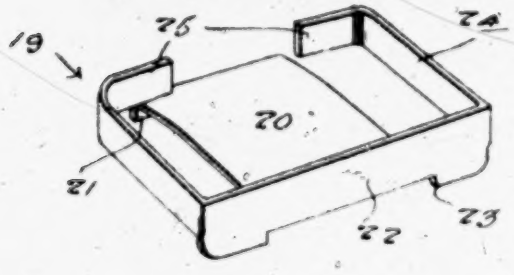


Fig. 7.

Inventor
Edward Arnold

By Clarence O'Brien
Attorney

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Defendant's Exhibit F

April 9, 1929. E. ARNOLD 1,708,407

GROCERY STORE APPLIANCE

Filed April 27, 1928 2 Sheets-Sheet 2

Fig. 2.

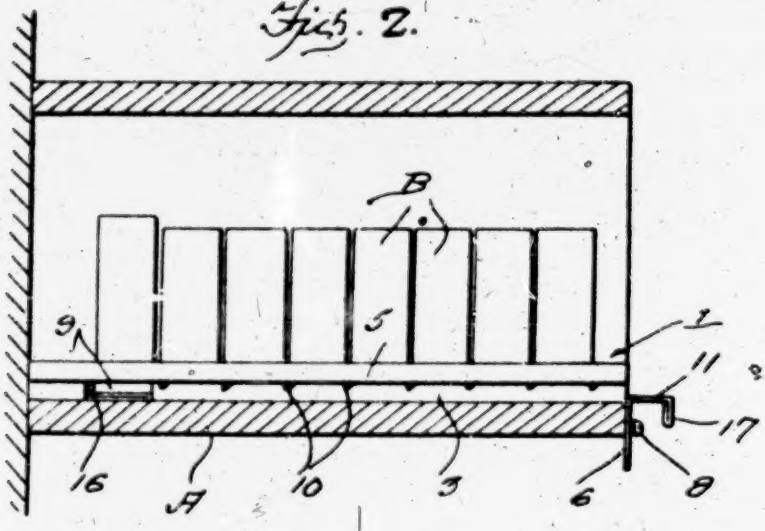


Fig. 4.

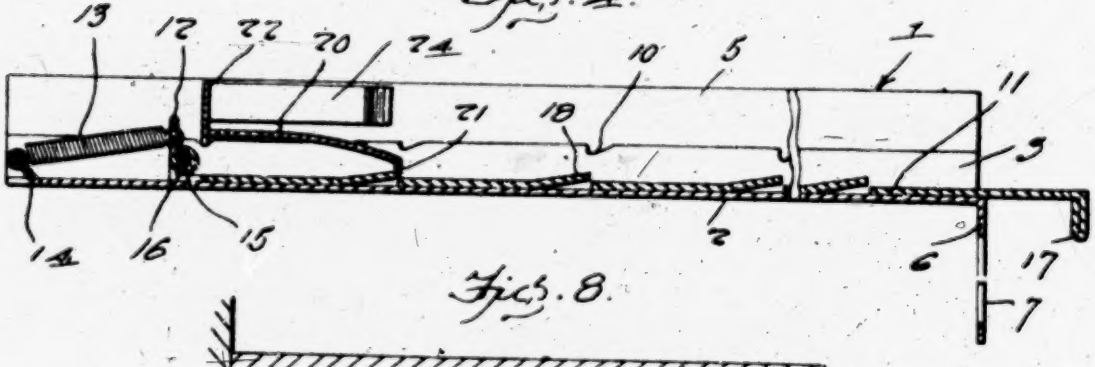
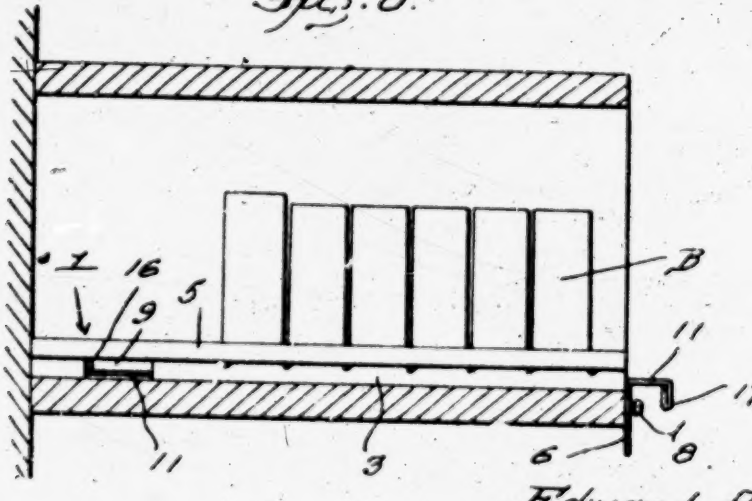


Fig. 8.



Inventor

Edward Arnold

By Clarence O'Brien

Attorney

Defendant's Exhibit F

Patented Apr. 9, 1929. 1,708,407

UNITED STATES PATENT OFFICE.

EDWARD ARNOLD, OF NACHES, WASHINGTON.

GROCERY-STORE APPLIANCE.

Application filed April 27, 1928. Serial No. 273,282.

The present invention relates to a grocery store appliance and has reference more particularly to a device for feeding a horizontally arranged row of cans or packages of merchandise forwardly on the shelves when the forwardmost can or package is removed, thus always presenting a can or package adjacent the forward edge of the shelves.

One of the important objects of the present invention is to provide a device of the above mentioned character that can be readily and easily placed in position upon the shelves in a store for receiving horizontally arranged rows of commodities to be displayed on the shelves, each device including a member that is operable at the front of the respective shelf for feeding the particular row of cans or packages forwardly.

A further object is to provide a device of the above mentioned character which includes a slidable carriage for receiving the rearmost can or package, the carriage being mounted for slidable movement within a suitable frame that is rigidly secured on the shelf, and within which frame is disposed the row of cans or packages, a normally retracted slidable plate being also arranged within the frame for cooperation with the carriage to effect the forward movement of the latter to feed the articles forwardly in the frame, additional means being provided between the frame and the carriage for limiting the forward sliding movement of said carriage each time the slidable plate is pulled forwardly.

A still further object is to provide a device of the above mentioned character which will at all times be positive and efficient in its operation, the same being further simple in construction, inexpensive, strong and durable and further well adapted to the purpose for which it is designed.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the accompanying drawings wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a fragmentary front elevation of a row of shelves showing the manner in which my appliance is mounted on each shelf, one row of packages being arranged on the device.

Figure 2 is a side elevation of the appliance showing the same secured on a shelf, and the manner in which a row of commodities is positioned on the device.

Figure 3 is a top plan view of the device per se.

Figure 4 is a longitudinal sectional view therethrough.

Figure 5 is a transverse section taken substantially on the line 5—5 of Figure 3 looking in the direction of the arrows.

Figure 6 is a similar section taken on the line 6—6 of Figure 3.

Figure 7 is a detail perspective view of the slidable carriage, and

Figure 8 is a view similar to Figure 2 showing the position of the commodities after a number of the same have been removed from the shelf.

In the drawings wherein for the purpose of illustration is shown the preferred embodiment of my invention, the numeral 1 designates generally the frame of my appliance, the same including a bottom 2 which is of a length substantially equal to the width or depth of the shelf A. The side edges of the bottom wall 2 are disposed upwardly as at 3 and thence outwardly as at 4 to form the parallel spaced lateral tracks, the purpose of which will be hereinafter more fully described.

The outer edge portions of the laterally disposed portions 4 terminate in the upwardly directed side forming walls 5 and this construction is more clearly shown in Figure 6 of the drawings.

The bottom 2 is formed at its forward end with a depending bracket 6 that is formed with an inverted T-shaped slot 7 for cooperation with a screw 8 that is driven into the forward edge of the shelf A, and normally the shank of this screw is disposed in the smaller portion of the slot. This provides a means whereby the frame will be secured on a shelf in a detachable manner.

The upwardly disposed edge portions 3 are formed adjacent their rear ends with the registering longitudinally extending cut out portions 9 for a purpose to be presently apparent. Each of the laterally disposed

tracks 4 is formed with a series of spaced openings 10, said openings being arranged in pairs and for a purpose also to be presently described. As clearly illustrated in Figures 2, 4, 6 and 8 of the drawings, the inner ends of the openings terminate in the upwardly disposed sides 3.

An elongated plate 11 is arranged for slidable movement along the upper face of the bottom 2 between the upwardly disposed sides 3 of the frame This plate 11 has its inner or rear end disposed upwardly as at 12 and a retractile coil spring 13 is secured at its forward end to the upwardly disposed rear end 12 of the slidable plate 11 and at its rear end to the projection 14 that is struck up from the rear end of the intermediate portion of the bottom wall 2 of the frame 1.

The plate 11 is furthermore formed with a transversely disposed loop 15 that is formed at the juncture of the upwardly disposed rear end 12 and the adjacent portion of the plate 11 and disposed through this loop 15 is the elongated plate 16 the ends being extended through the registering cut out portions 9 in the manner as clearly shown in Figure 5. This pin or rod 16 cooperates with the cut out portions 9 to limit the forward and rearward sliding movement of the plate 11 and the retractile coil spring 13 normally holds the free ends of the pin or rod in engagement with the rear end of the cut out portions 9. The inner ends of the cut out portions 9 terminate forwardly of the inner end of the frame 1 and this will result in the forward end portion of the slidable plate extending beyond the forward or outer end of the frame and this forwardly projecting portion of the slidable plate is provided with a depending finger engaging portion 17 whereby said plate may be actuated in the manner to be hereinafter more fully described.

A series of spaced lips 13 are struck up from the intermediate portion of the slidable plate 11, and the same are arranged a suitable distance apart with respect to each other.

Also adapted for slidable movement within the frame is the carriage designated generally by the numeral 19. This carriage includes a slightly curved bottom 20, the forward edge portion thereof being disposed downwardly to form a flange 21 with which the upwardly disposed lips 18 cooperate. An upstanding wall 22 is formed at the rear edge of the bottom 20 and the ends of this rear wall 22 project beyond the respective sides of the bottom and the lower edges of the outwardly projecting ends extend beyond the bottom 20 for the purpose of providing a pair of ears 23 as shown very clearly in Figure 7.

The carriage 19 further includes the side forming walls 24 that extend forwardly from the respective ends of the rear wall 22, the forward extremities of the side walls being directed inwardly as at 25 to provide spring clips whereby to hold a can or package on the bottom 20 of the platform 19.

The carriage is of such construction as to cause the bottom 20 to be adapted for slidable movement across the upper face of the plate 11, while the side walls 24 are disposed adjacent the respective side walls 5 of the frame 1 and the depending ears 23 will ride along the laterally disposed tracks 4 and cooperate with the openings 10 formed therein.

In use, the frame 1 is disposed transversely on the bottom of the shelf, and the bracket 6 is secured to the shelf in a rigid manner by the headed screw 8 cooperating with the T-shaped slot 7. The platform 19 is placed at the rear end of the slidable plate 11 so that the depending ears 23 will be in engagement with the rearwardmost pair of openings 10 formed in the lateral rails or tracks 4. A row of cans or packages B is then placed in a horizontal manner on the frame so that the bottoms of the packages or cans will rest on the tracks 4 and the rearmost package or article will be confined within the platform for rest upon the bottom 20 and as the bottom 20 of the platform 19 normally extends above the tracks 4, the upper end of the rearmost can or package B will be disposed above the upper ends or tops of the other articles arranged in the same row as clearly shown in Figures 2 and 8. In the present instance, eight packages are supported on the frame and the forwardmost one in located adjacent the front or open side of the shelf. It is however to be understood that I do not wish to limit myself to the particular number of cans or packages that may be supported on the device.

When the forwardmost package or can is removed, the clerk then pulls outwardly on the depending finger piece 17, causing the forward sliding movement of the plate 11 against the tension of the retractile coil spring 13. As the rearmost upwardly struck out lip 18 is in engagement with the depending flange 21 formed at the forward edge of the bottom 20 of the platform 19, the latter will also be advanced, and as the forward portions of the openings 10 are beveled, the depending ears 23 will move forwardly out of the opening and ride along the lateral tracks 4. This will result in the receptacle carried by the platform feeding the other receptacles in the same row forwardly of the rearmost one forwardly within the frame so that the forwardmost one in the row will be brought into position adjacent the open front side of the shelf and when the row of receptacles are in this position,

the depending ears 23 will have dropped or entered into the next forward pair of openings, and the depending flange 21 will then have been disposed in position for cooperation with the next forwardmost lip 18 of the slidable plate 11.

When the finger engaging portion 17 is released, the spring 13 will return the slidable plate to its normal position and due to the construction of the lip 18, said plate will be free to ride underneath of the flange 21 in a rearward direction.

The plate 11 is continued to be actuated until the platform 19 has reached its forwardmost position in the frame, and when in this position the rearmost receptacle will then be positioned adjacent the front of the shelf and when this particular receptacle is removed, the platform is disengaged from the device by lifting the same bodily upwardly and again placing the same at the rear or inner end of the frame. The frame is then refilled with a horizontal row of receptacles.

It will thus be seen from the foregoing description that I have provided an appliance for displaying merchandise on shelves in stores, and wherein the merchandise is arranged in horizontal rows so that when the forwardmost receptacle containing the merchandise is removed from the shelf, the device can be actuated to feed the receptacles forwardly, thus giving the appearance of the shelves being stocked.

A device of this character may not only be used in grocery stores, but may equally as well be used in drug stores, and other places where merchandise is placed on shelves for display and sale purposes.

Furthermore, a device of this character will at all times be positive and efficient in its operation and will not detract from the appearance of the goods on display on the shelves. The simplicity of my device furthermore enables the same to be constructed at a very low cost and will furthermore be strong and durable.

While I have shown the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention and the scope of the appended claims.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a device of the class described, a frame for disposition upon a shelf, and on which a row of articles are horizontally arranged, a plate slidable in the frame, an actuating handle at the forward end of the plate, a carriage slidable on the frame and engaging the rearmost article and cooperating means between the slidable plate and said carriage for moving the same forwardly to feed the row of articles toward the forward end of the frame.

2. In a device of the class described, a frame for disposition upon a shelf, and on which a row of articles are horizontally arranged, a plate slidable in the frame, an actuating handle at the forward end of the plate, a carriage slidable on the frame and engaging the rearmost article, cooperating means between the slidable plate and said carriage for moving the same forwardly to feed the row of articles toward the forward end of the frame, and a retractile coil spring associated with the rear end of the frame and the adjacent end of the plate for returning the same to its initial position when said handle is released.

3. In a device of the class described, a frame for disposition upon a shelf, and on which a row of articles are horizontally arranged, a plate slidable in the frame, an actuating handle at the forward end of the plate, a carriage slidable on the frame and engaging the rearmost article, cooperating means between the slidable plate and said carriage for moving the same forwardly to feed the row of articles toward the forward end of the frame, said last mentioned means comprising a series of spaced upwardly extending lips arranged on said slidable plate, and a depending flange at the forward edge of the bottom of the platform with which said lips successively engage.

4. In a device of the class described, a frame for disposition upon a shelf, the side edges of the bottom of the frame being disposed upwardly and thence laterally to provide parallel spaced longitudinal tracks, and on which a row of articles is adapted to be horizontally arranged, a plate slidable on the bottom of the frame between the upwardly disposed sides, the forward end of said plate extending beyond the adjacent end of the frame and providing a handle, a retractile coil spring for normally urging said slidable plate rearwardly, a platform including a bottom, and upstanding sides for slidable movement along said tracks, said platform being adapted to receive the rearmost article, cooperating means between the bottom of the platform and said slidable plate for feeding articles toward the forward end of the frame, and cooperating means between the platform and said track to limit the sliding movement of the platform at each operation of the sliding plate in a forward direction.

5. In a device of the class described, a frame for disposition upon a shelf, the side edges of the bottom of the frame being disposed upwardly and thence laterally to provide parallel spaced longitudinal tracks, and on which a row of articles is adapted to be horizontally arranged, a plate slidable on the

bottom of the frame between the upwardly disposed sides, the forward end of said plate extending beyond the adjacent end of the frame and providing a handle, a retractile coil spring for normally urging said slidable plate rearwardly, a platform including a bottom, and upstanding sides for slidable movement along said tracks, said platform being adapted to receive the rearmost article, cooperating means between the bottom of the platform and said slidable plate for feeding articles toward the forward end of the frame, cooperating means between the platform and said track to limit the sliding movement of the platform at each operation of the sliding plate in a forward direction, said first mentioned means comprising a series of spaced lips struck up from the plate, and a flange depending from the forward edge of the bottom of the platform for successive engagement with said lips.

6. In a device of the class described, a frame for disposition upon a shelf, the side edges of the bottom of the frame being disposed upwardly and thence laterally to provide parallel spaced longitudinal tracks, and on which a row of articles is adapted to be horizontally arranged, a plate slidable on the bottom of the frame between the upwardly disposed sides, the forward end of said plate extending beyond the adjacent end of the frame and providing a handle, a retractile coil spring for normally urging said slidable plate rearwardly, a platform including a bottom, and upstanding sides for slidable movement along said tracks, said platform being adapted to receive the rearmost article, cooperating means between the bottom of the platform and said slidable plate for feeding articles toward the forward end of the frame, cooperating means between the platform and said track to limit the sliding movement of the platform at each operation of the sliding plate in a forward direction, said last mentioned means comprising a pair of depending ears at the sides of the platform, said tracks being formed with a series of spaced openings arranged in pairs to receive said depending ears.

7. In a device of the class described, a member for disposition upon a shelf and arranged for slidable movement thereon, said member being adapted to support a row of articles that are arranged horizontally thereon, a carriage slidable on the member and engaging the rearwardmost article, cooperating means between the slidable member and the carriage for moving the same forwardly to feed the row of articles toward the forward edge of the shelf when the slidable member is actuated, and spring means associated with the rear end of the slidable member for returning the same to its normal position.

In testimony whereof I affix my signature.

EDWARD ARNOLD.

Defendant's Exhibit F

Aug. 23, 1932. C. E. RORRER ET AL 1,873,852

STORE

Filed Aug. 28, 1928 2 Sheets-Sheet 1

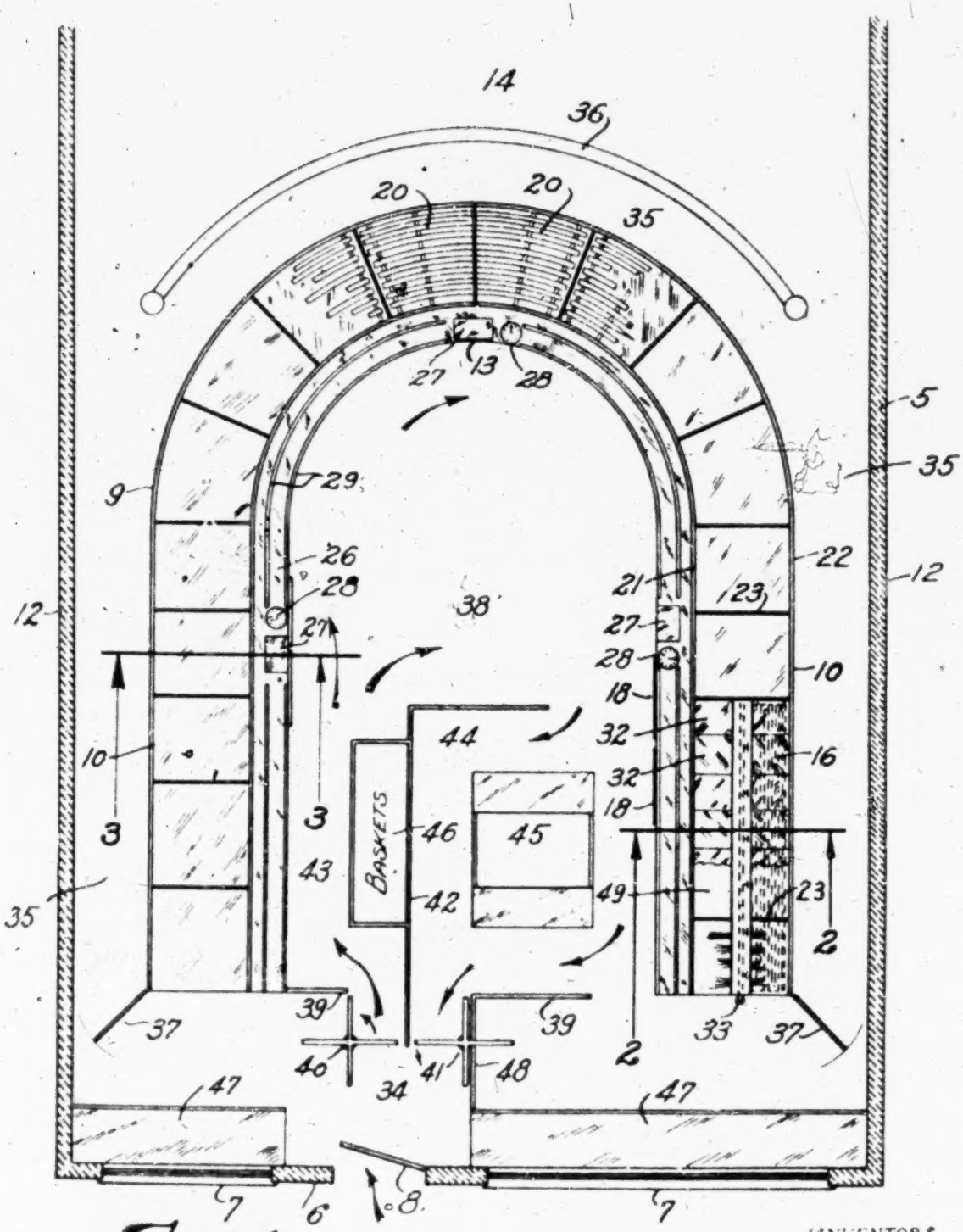


Fig. 1.

INVENTORS
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ALBERT R MITTERER.
BY
ATTORNEY.

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Defendant's Exhibit F

Aug. 23, 1932. C. E. RORRER ET AL 1,873,852

STORE

Filed Aug. 28, 1928 2 Sheets-Sheet 2

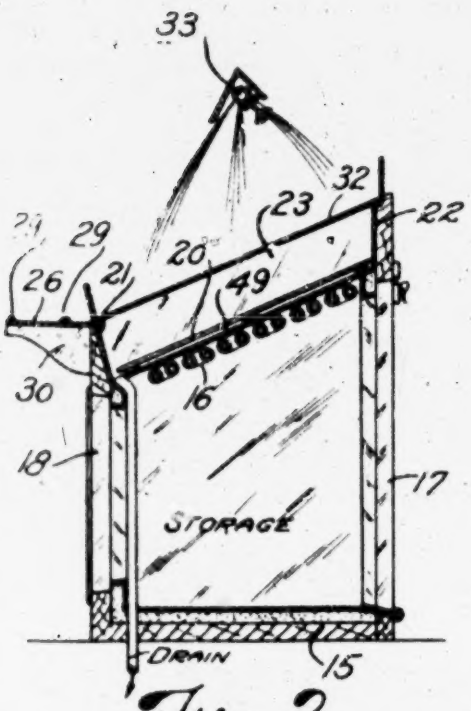

Fig. 2.

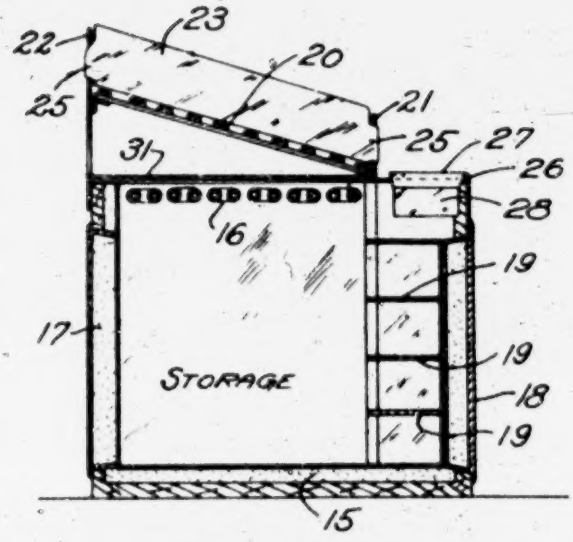

Fig. 3.

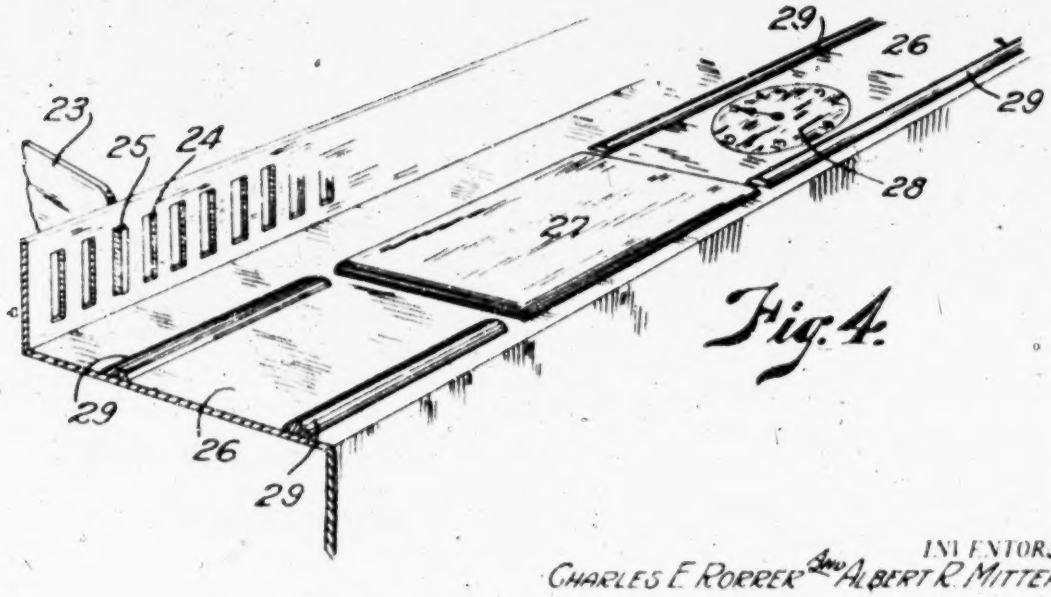

Fig. 4.

INVENTORS.
CHARLES E. RORRER AND ALBERT R. MITTERER

BY

ATTORNEY.

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Defendant's Exhibit F

Patented Aug. 23, 1932

1,873,852

UNITED STATES PATENT OFFICE

CHARLES E. BORRER AND ALBERT R. MITTERER, OF DENVER, COLORADO, ASSIGNORS TO STADIUM STORES, INC., OF DENVER, COLORADO

STORE

Application filed August 23, 1928. Serial No. 302,494.

This invention relates to stores of the self-serve type and its principal object is to provide an arrangement of counters, checking stand, entrances, exits and other appliances and installations that permits of the display of merchandise to the best advantage and its ready inspection by customers passing through the store.

Another object of the invention resides in providing a store arrangement that permits of replenishing the merchandise by attendants without interfering with the customers, a further object is to provide means readily accessible to purchasers to ascertain the weight of goods taken from the display shelves, another object is to provide in a self-serving store, a simple and effective method for preserving perishable merchandise by refrigeration and moisture. A further object is to provide for the attractive display of merchandise in a sale-room in such a manner that all the merchandise can be seen from any point in the room, both by the customers and by the checking clerks, and still other objects reside in details of construction and in other novel arrangements and combinations of parts as will be brought out in the course of the following description.

In the accompanying drawings in the several views, of which like parts are similarly designated,

Figure 1 represents a plan view of the improved store-arrangement,

Figure 2, a section taken on the line 2—2, Figure 1,

Figure 3, a section along the line 3—3, Figure 1, and

Figure 4, a perspective view of one of the weighing appliances included in the arrangement.

In Figure 1 of the drawings the reference numeral 5 designates a store room having a front-wall 6, with display-windows 7 and an entrance-door 8.

The rear wall of the store has not been shown for lack of space, but it is to be understood that the rear wall may as usual, have one or more doors through which merchandise can be supplied to a storage space 14 in the back of the room.

The outstanding feature of the installation is a display stand 9 of U-shaped or horse-shoe form, the sides 10 of which may extend parallel to the side walls 12 of the store room and the curve 13 of which faces the front wall of the same.

The stand is made of upright walls and a top to provide a case 15 useful mainly for the storage of merchandise and for the installation of pipes 16 of a refrigeration system by which perishable merchandise is kept from spoiling.

The walls of the case may be made of insulating material and the case has a plurality of doors 17 in its outer wall to afford access to the contents of the case.

The front wall of the case may also be provided with doors as at 18, and the case may have shelves 19 accessible to the customers, behind one or more of these doors, for the storage of merchandise requiring constant refrigeration such as butter, milk, eggs, etc.

The top 20 of the stand slants from its rear wall forwardly and it may be divided into a number of stalls by a front wall 21, a rear wall 22 and transverse partitions 23. In order to vary the size of these stalls, the partitions may be adjustable, and a convenient method of adjusting the partitions consists in providing the rear and front walls of the stalls with upright slots 24, best shown in Figure 4, and by forming the partitions at their ends with tongues 25 that loosely fit into the slots.

In front of the slanting stalls at the lower ends thereof is a weighing shelf 26 equipped with movable platforms 27, dials 28 to indicate the weight of articles supported on the platforms, and parallel rails 29 to facilitate the sliding movement of baskets with merchandise to and from the platforms. The shelf may be supported on brackets 30 forward of the front wall of the case, as shown in Figure 2, or it may form the top of the portion or portions of the case containing the shelves 19, as illustrated in Figure 3.

The slanting top of the casing may be directly exposed to the refrigerant effect of a cooling fluid in the pipes of the case, as is necessary for the preservation of highly

perishable products such as vegetables, or a false top 31 may be interposed between the slanting top and the interior of the case containing the refrigeration pipes, as has been illustrated in Figure 3. The last mentioned arrangement is of particular value for stalls used for the storage and display of fruits.

Removable covers 32, may be provided to protect the contents of part or all of the stalls and a spray-pipe 33 may be installed above the vegetable stalls to supply water to the green garden produce and thereby keep it in fresh condition.

The U-shaped display stand is arranged with relation to the walls of the store room to provide a vestibule 34 in the front portion thereof, the before mentioned storage room 14 in the back portion of the same and a corridor 35 around the entire stand. A high screen 36 separates the portion of the corridor at the curve of the stand from the storage room.

The corridor is closed at the front of the stand by doors or gates 37 which prevent customers and other unauthorized persons from entering the same, it being a feature of the invention that the spaces outside the U-shaped stand, are provided for the convenience of employees of the establishment, only.

The space 38 within the horseshoe is closed at the front thereof by a railing 39 having an entrance 40 and an exit 41 at opposite sides of a cross-railing 42 that extends a short distance into the space inside the U-shaped stand. The entrance and the exit may have gates of the turn-style kind if so desired.

The cross-rail 42 divides the front of the space inside the stand into a passage 43 leading to the greater portion of the space and an office 44 containing a desk 45 for the checkers or cashiers of the store.

In the passage 43 is a rack 46 for the support of baskets used by the customers to carry their purchases to the desk.

In the vestibule are benches 47 for window-displays and a partition 48 to provide a direct passage for customers to the front door after they have passed around the checking desk.

Persons entering the sale room within the horse-shoe, obtain a view of all the merchandise on display. Their selection of purchases is thus greatly facilitated and they may go directly to the stalls containing the desired goods, and thereby avoid the annoyance experienced on other stores of similar character in which customers are compelled to follow a circuitous route or path in order to obtain any of the merchandise that is for sale.

The selected merchandise is placed in the baskets taken from the rack 46 in the passage and it may be weighed by placing it on any one of the platforms of the weighing devices installed at the front of the stand. The movement of the baskets to and from the scales is greatly facilitated by the rails along which they can be slid with very little effort.

After the customer has selected the goods to be purchased, he or she passes around the checkers desk, where the purchased articles are packed and paid for. The customer then leaves the sales room through the exit and passes from the store through the front door.

The employees of the store entrusted with the sale of the merchandise, are in the corridor outside of the U-shaped stand where they have access to all of the stalls on top of the stand and to the inside of the case in the body portion of the stand at any point thereof. The attendants thus may replenish stands with fresh goods as fast as they are emptied or partially emptied by the customers, and the goods are readily obtained from the supplies stored in the storage room back of the stand.

It is an outstanding feature of the arrangement that the customers and the attendants never interfere with each other and that the attendants are in a position to assist the customers at any point of the stand or counter.

The slanting top of the stand functions to display the goods to the best advantage, it gives the appearance of larger quantities than are really contained in the stalls and it causes the goods to move downwardly within easy reach of the customers, as fast as parts of the goods are removed.

The refrigeration system and the water spray keep the goods on and in the stand in fresh condition and the entire business may be transacted in one room without the use of a basement or other separate storage space.

Sacks and bags for the merchandise may be suspended for easy access beneath the weighing shelf.

Racks 49 may be placed on the slanting top to support the goods in spaced relation thereto.

What we claim and desire to secure by Letters Patent is:

1. In a store of the character described, a U-shaped display stand dividing a floor space of the store into a space for customers on the inside of the stand and a corridor for employees on the outside of the same, the stand having a top for the support of merchandise, sloping upwardly from the customers space to the corridor.

2. In a store, a U-shaped display stand providing a space for customers having an entrance at an end of the store, and a screen spaced from the stand at the opposite end of the store, the screen and the side-walls of the store forming a corridor around the stand, and the screen defining a storage space screened from the space for customers.

3. In a store, a U-shaped display stand providing a space for customers having an entrance at an end of the store, and a screen spaced from the stand at the opposite end of

the store, the screen defining a storage space at the said opposite end of the store and adapted to hide the storage space from the space for customers.

4. In a store, a U-shaped display stand providing a space for customers interiorly of the stand and a space for employees outside the same, the top surface of the stand sloping from the space for customers upwardly to the space for employees, a space for merchandise within said stand, and means affording access to the interior of the stand from both sides thereof.

5. In a store, a U-shaped display stand providing a space for customers interiorly of the stand and a space for employees outside the same, the top surface of the stand sloping from the space for customers upwardly, and transverse partitions dividing said surface into stalls, a space for merchandise within said stand, and means affording access to the interior of the stand from both sides thereof.

6. In a store, a U-shaped display stand providing a space for customers interiorly of the stand and a space for employees outside the same, the top surface of the stand sloping from the space for customers upwardly, and transverse partitions dividing said surface into stalls, the partitions being separately movable to vary the width of the stalls, a space for merchandise within said stand, and means affording access to the interior of the stand from both sides thereof.

7. In a store, a U-shaped display stand providing a space for customers interiorly of the stand and a space for employees outside the same, the top surface of the stand sloping from the space for customers upwardly, and a wall at the upper edge of the surface to retain merchandise upon the same, a space for merchandise within said stand, and means affording access to the interior of the stand from both sides thereof.

8. In a store, a U-shaped display stand providing a space for customers interiorly of the stand and a space for employees outside the same, the top surface of the stand sloping from the space for customers upwardly, a wall at the upper edge of the surface to retain merchandise upon the same, and transverse partitions cooperating with the wall to divide the surface into stalls, a space for merchandise within said stand, and means affording access to the interior of the stand from both sides thereof.

9. In a store, a U-shaped display stand providing a space for customers interiorly of the stand and a space for employees outside the same, the top surface of the stand sloping from the space for customers upwardly, a wall at the upper edge of the surface to retain merchandise upon the same, and transverse partitions connected with the wall for adjustment to selective positions, whereby to divide the surface into stalls of variable widths, a space for merchandise within said stand, and means affording access to the interior of the stand from both sides thereof.

10. In a store, a U-shaped display stand dividing floor space of the store into a space within the stand for customers, and a space outside the stand for employees, the stand having a stationary top for the display of merchandise, sloping upwardly from the customers' space to the employees' space.

11. In a store, a U-shaped display stand dividing floor space of the store into separate spaces for customers and for employees, the stand having a top for the display of merchandise, sloping upwardly from the customer's space to the employees' space.

In testimony whereof we have affixed our signatures.

CHARLES E. RORRER.
ALBERT R. MITTERER.

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Defendant's Exhibit F

Nov. 17, 1931. F. MYERS 1,832,410

PACKING STAND

Filed April 30, 1928 2 Sheets-Sheet 1

Fig. 1.

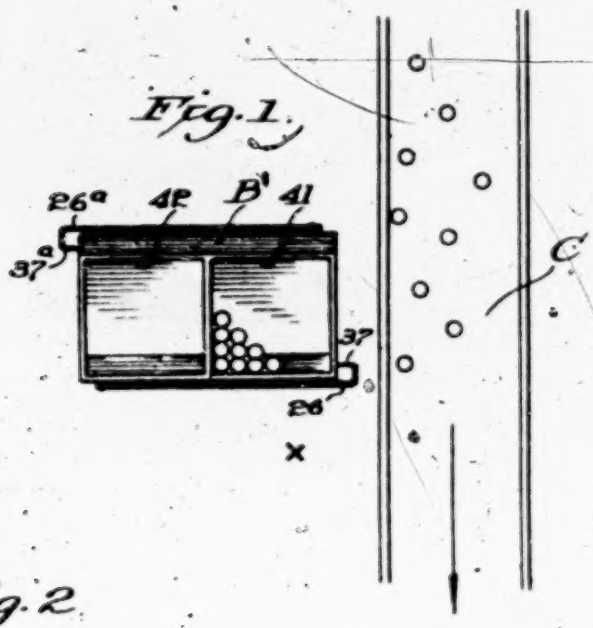


Fig. 2.

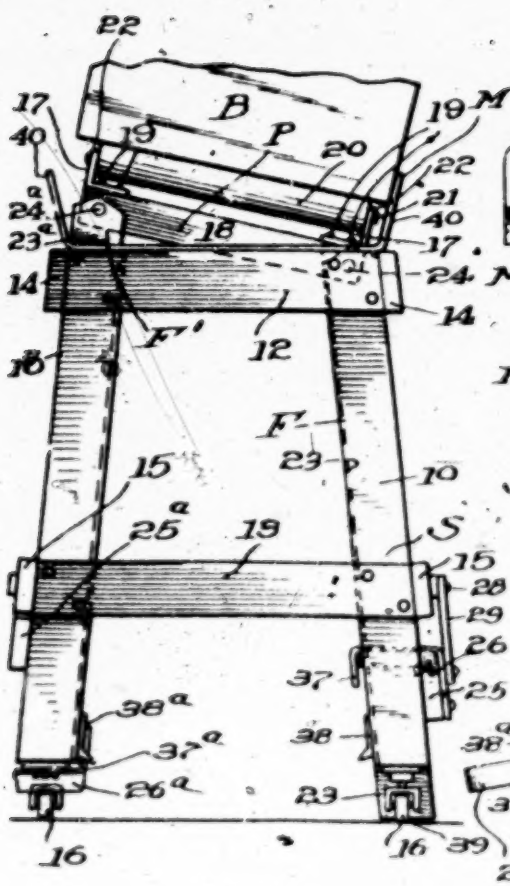
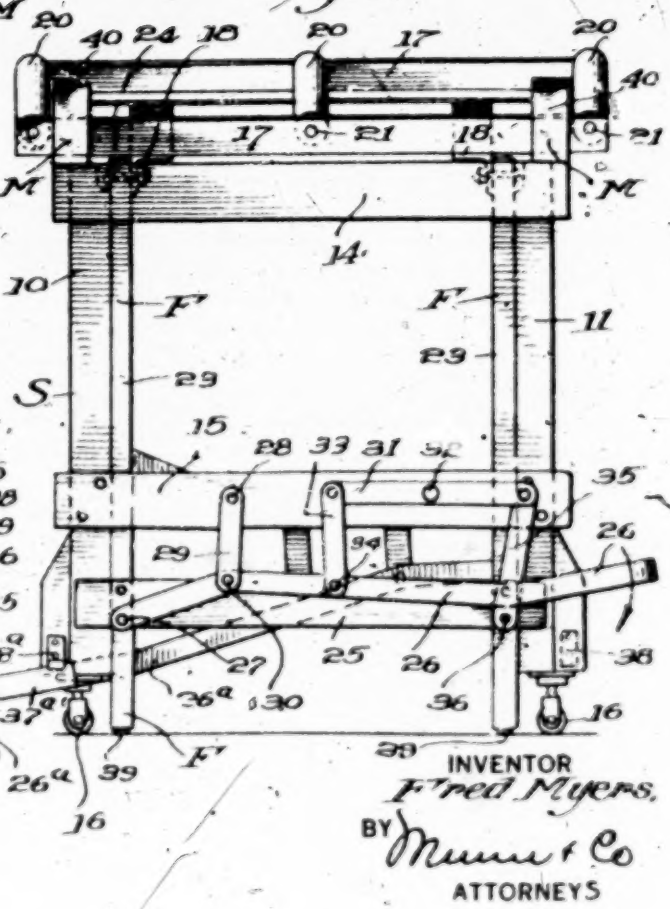


Fig. 3.



INVENTOR
Fred Myers,
BY Munn & Co
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497

Defendant's Exhibit F

Nov. 17, 1931. F. MYERS 1,832,410

PACKING STAND

Filed April 30, 1928 2 Sheets-Sheet 2

Fig. 4

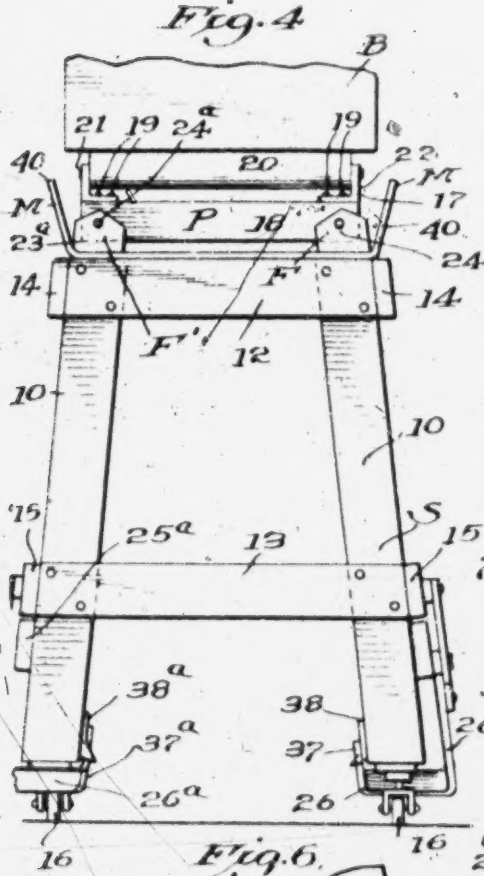

Fig. 5

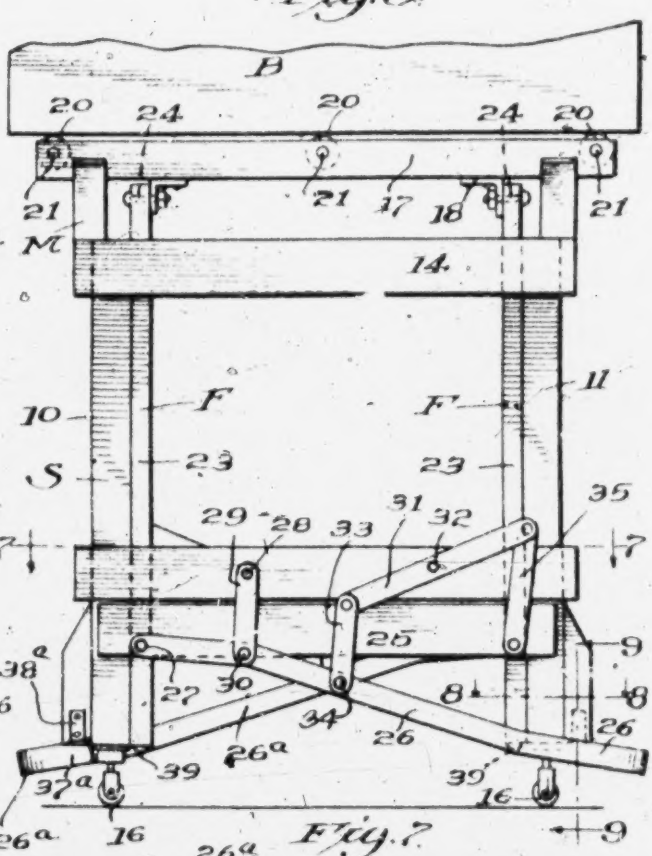

Fig. 6

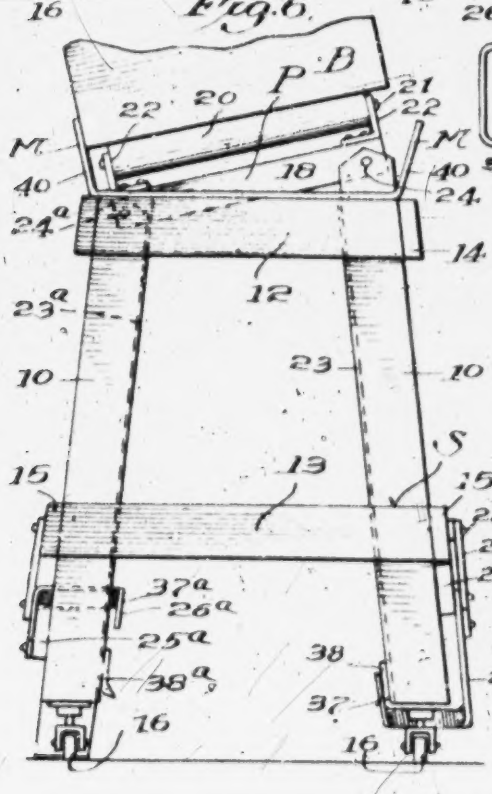

Fig. 7

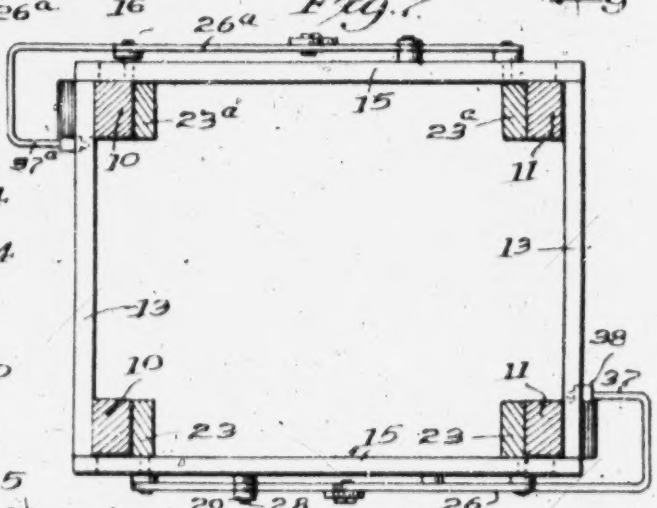

Fig. 8

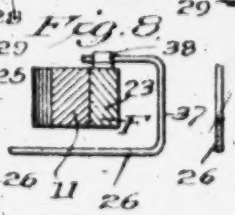

Fig. 9

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Defendant's Exhibit F

Patented Nov. 17, 1931 1,832,410

UNITED STATES PATENT OFFICE

FRED MYERS, OF FALLBROOK, CALIFORNIA

PACKING STAND

Application filed April 30, 1928. Serial No. 274,111.

My invention relates to and has for its purpose the provision of a simple, substantial and inexpensive packing stand particularly adapted, although not necessarily, for use in citrus fruit packing plants, and by which the packing of fruit in the different compartments of the conventional form of crates or boxes is greatly facilitated, and the manual labor attendant the necessary moving and shifting about of the box with respect to the usual traveling conveyor from which the fruit to be packed is removed by the operator, to the positions most convenient to the operator for the packing of the fruit in the different compartments of the box, is reduced to a minimum, and the manipulation of the box while packing the fruit therein accomplished with the utmost ease and dispatch and to the entire elimination of any lifting or other physically fatiguing labor on the part of the operator.

I will describe only one form of packing stand embodying my invention and will then point out the novel features in claims.

In the accompanying drawings,

Fig. 1 is a view showing in plan one form of packing stand embodying my invention, with a box or crate supported thereon, and illustrating the manner in which the stand is adapted to be associated with a fruit delivering conveyor during the packing operation;

Fig. 2 is a view of the packing stand in end elevation and illustrating one position in which a box or crate is adapted to be supported on the stand;

Fig. 3 is a view in side elevation of the packing stand illustrated in Fig. 2;

Fig. 4 is a view of the packing stand illustrating another position in which a box or crate is adapted to be supported on the stand;

Fig. 5 is a view in side elevation of the stand as shown in Fig. 4;

Fig. 6 is a view similar to Figs. 2 and 4 and illustrating still another position in which a box or crate is adapted to be supported on the stand.

Fig. 7 is a horizontal sectional view taken on the line 7—7 of Fig. 5 and looking in the direction of the arrows; and

Figs. 8 and 9 are enlarged detail sectional views taken respectively on the lines 8—8 and 9—9 of Fig. 5, and illustrating one of two latching devices embodied in the packing stand.

Referring specifically to the drawings in which similar reference characters designate similar parts in each of the several views, my invention in its present embodiment comprises a support designated generally at S constructed of wood or other suitable material to provide two pairs of upright members 10 and 11, with the members of each pair rigidly connected together in spaced and upwardly converging relation by means of upper and lower transverse rails 12 and 13 respectively, while the upright members of one pair are rigidly connected in spaced parallel relation to those of the other pair by upper and lower longitudinal rails 14 and 15 respectively, to the end that all of the members will co-operate to form a rigid skeleton frame which is mounted for rolling movement over the floor by means of casters 16 secured to the lower ends of the pairs of upright members 10 and 11.

To provide means for supporting a box B to be packed with fruit, in an elevated position on the support, a platform designated generally at P is shown; and means is provided by which the platform is mounted for movement on the support to occupy a horizontal position as shown in Fig. 4 or either one of two inclined or tilted positions as shown in Figs. 2 and 6.

The platform P in the present instance comprises a pair of longitudinal bars 17 of L shaped cross section rigidly connected in spaced parallel relation by transverse bars 18 also of L shaped cross section and secured to the undersides of the longitudinal bars by fastening members 19. Spanning the longitudinal bars 17 are a plurality of rollers 20 having stub shafts 21 at their ends journaled in the vertical portions 22 of the longitudinal bars. Upon the rollers, the box or crate to be packed with fruit is adapted to rest, and it will be appreciated that while the rollers normally firmly support the box, they permit the box when fully packed with fruit to be

Defendant's Exhibit F

rolled from the platform with a minimum amount of labor on the part of the operator.

The means for mounting the platform for movement in the frame to occupy is two oppositely tilted positions and its horizontal position comprises in the present instance two frames designated generally at F and F′ which are mounted for vertical movement in the support S at opposite sides thereof. As the frames F and F′ are identical in construction a description of one will suffice for both, and to distinguish the reference characters of one frame from those of the other, the characters for the parts of one frame are provided with exponents.

The frame F comprises a pair of upright members 23 disposed at the inner or confronting sides of one of the members of each pair of members 10 and 11 of the support S and pivotally connected at their upper ends by bolts 24 to the transverse bars 18 of the platform P, while the upright members 23 are tied together in definite spaced relation adjacent their lower ends by a single horizontal member 25. The extremities of the horizontal member 25 project beyond the upright members 23 and ride upon the outer sides of the members 10 and 11 of the support S as the frame F is raised or lowered to thus prevent inward displacement of the frame F, and it will be clear that as the latter is raised or lowered, a corresponding movement will be imparted to one side of the platform P. Such movements of the other frame F′ will impart corresponding movements to the opposite side of the platform, to the end that with the frame F lowered and the frame F′ raised as is shown in Figs. 2 and 3 the platform P will be inclined towards one side; and with the frame F′ lowered and the frame F raised as shown in Fig. 6, the platform will be inclined towards the opposite side, whereas with both frames F and F′ raised as shown in Figs. 4 and 5, the platform will occupy a horizontal position.

For each of the frames F and F′ I provide an actuating mechanism by which the frames can be moved to their raised positions and releasably retained or latched therein, and as these two mechanisms are identical, a description of one will suffice for both, the reference characters designating the parts of one mechanism being distinguished from those of the other by exponents.

The actuating mechanism for the frame F comprises a foot actuated member in the form of a lever 26 pivoted at one end at 27 on the outer side of the horizontal member 25 of the frame F and projecting at its free end beyond one end of the support S. Pivoted at 28 on a lower longitudinal rail 15 of the support S is a link 29 pivotally connected to the lever 26 at 30, while an equalizing lever 31 is pivoted medially between its ends at 32 to the rail 15 of the support S. To one end of the equalizing lever 31 is pivotally connected a link 33 pivotally connected at 34 to the actuating lever 26, and to the other end of the equalizing lever is pivotally connected a link 35 in turn pivotally connected at 36 to said horizontal member 25 of the frame F. Upon depression of the free end of the actuating lever 26 by the foot of the operator, from the position shown in Fig. 3 to that shown in Fig. 5, it will be clear that through the medium of the compounded lever system above described the frame F will be raised to the position shown in the latter figure to impart a corresponding movement to the respective side of the platform P.

To provide means for latching the frame F in its raised position, the free end of the actuating lever 26 is bent back upon itself to form a latching arm 37 which in the depressed position of the lever is adapted to be engaged with a keeper 38 secured to the upright member 11 of the support S. The latching of the lever 26 in its depressed position is effected by a slight lateral shifting of the free end of the lever towards the keeper as the foot of the operator depresses the lever, and the unlatching of the lever is effected by a slight reverse lateral movement of the latter, thus permitting the frame F to gravitate to its lowered position under the weight of the platform and the box supported thereon.

It will be understood that the actuating mechanism for the frame F′ is associated with the horizontal member 25^a of the latter and the lower longitudinal rail 15 at the opposite side of the support S in the same manner just described for the actuating mechanism of the frame F, to the end that the free ends of the actuating levers 26 and 26^a will project from the support S at diagonally opposite corners thereof for actuation of the respective frames independently of each other.

The lower ends of the members 23 and 23^a of the frames F and F′ respectively are provided with friction elements 39 in the form of rubber buttons which engage the floor when the frames occupy their lowered positions, thus definitely limiting the lowered positions of the frames and positively preventing accidental rolling movement of the support S over the floor, when the platform P occupies either of its inclined positions.

To prevent displacement of a box from the platform P under the action of gravity when the platform occupies its inclined positions, stop members designated generally at M are provided, one at each end of the support S, and each comprising a length of strap metal secured upon the top side of an upper transverse rail 12 of the support S and having its free ends bent upwardly to provide abutments 40 which are disposed in the path of movement of the box should the latter tend to slide downwardly on the plat-

form under the action of gravity. However, when the platform is in its horizontal position, the bottom of a box on the platform will clear the upper extremities of the abutments 40 so that the latter will not interfere with rolling of the box off of the platform.

In the operation of the packing stand, reference will first be had to Fig. 1 wherein C indicates a conveyor alongside of which stands an operator who is facing the packing stand which has also been rolled to a position alongside of the conveyor and has a box B to be packed with fruit, supported on its platform P. The operator stands sufficiently close to the conveyor as at X to conveniently reach and remove fruit from the conveyor with one hand as the conveyor travels in the direction of the arrow.

Let it be assumed that the platform P has been adjusted on the support to one of its inclined positions wherein the box B will be tilted downwardly towards the operator so that the latter can conveniently reach into the compartments 41 and 42 of the box B; and that the side of the platform directly in front of the operator is that which is controlled by the actuating lever 26, the latter being disposed at the forward right hand corner of the support S as is shown in Fig. 1. The operator now removes an article of fruit from the conveyor with the right hand and wraps the article with tissue paper, after which the article is placed by the left hand of the operator in the right hand compartment 41 of the box, this operation being repeated until the compartment 41 is filled.

The operator now steps upon the lever 26 and latches the latter in its depressed position, which operation raises the side of the platform directly in front of the operator so that the platform and hence the box occupy horizontal positions.

The friction elements 39 of both frames F and F′ now clear the floor, so that the operator can now rotate the packing stand bodily on its casters 16, 180° from its former position so that the empty compartment 42 of the box will now be the right hand compartment and the actuating lever 26^a occupies the same relation to the operator as previously did the actuating lever 26. The actuating lever 26^a which during the filling of the compartment 41 was latched in its depressed position is now released allowing the side of the platform at present directly in front of the operator, to lower, so that the platform and hence the box is again inclined downwardly towards the operator. The filling of the compartment 42 is then accomplished in the same manner as was the compartment 41, after which the operator steps upon the actuating lever 26^a to move the latter to and latch it in its depressed position, thus again restoring the platform and hence the box to horizontal position.

The operator now rolls the packing stand over the floor to another conveyor (not shown), and then rolls the completely filled box of fruit off of the platform P onto this conveyor. The packing stand is then returned to the conveyor C; another and empty box is placed on the platform P; and the side of the platform directly in front of the operator is lowered, after which the above described operation is repeated.

From the foregoing operation, it will be manifest that broadly I have provided a packing stand capable of being readily moved from place to place and embodying a means for supporting a box or crate to be filled with fruit, which means is capable of being adjusted in such manner and with a minimum expenditure of manual labor as to dispose a box or crate supported thereon in a position tilted downwardly towards the operator to permit the rapid and convenient filling of both the compartments of the box, which would be impossible unless reversing of the positions of the box compartments with respect to the fruit delivering conveyor while maintaining the box tilted downwardly towards the operator, could be effected, as the operator cannot remain in easy and convenient reaching distance of the conveyor and of both the box compartments at one end the same time.

Although I have herein shown and described only one form of packing stand embodying my invention, it is to be understood that various changes and modifications may be made therein without departing from the spirit of the invention and the spirit and scope of the appended claims.

I claim:

1. A packing stand comprising a support, a platform capable of supporting a box, means for mounting the platform in an elevated position on the support for movement to occupy a horizontal position and either one of two oppositely inclined positions, and two means, one for actuating the mounting means to elevate one extremity of the platform and the other for actuating the mounting means to elevate the opposite extremity of the platform, whereby to move the platform to one or the other of two oppositely inclined positions according as one or the other of said two means is actuated, and to move the platform to a horizontal position in response to actuation of both of said two means.

2. A packing stand comprising a support, a platform capable of supporting a box, means for mounting the platform in an elevated position on the support for movement to occupy a horizontal position and either one of two oppositely inclined positions, two means, one for actuating the mounting means to elevate one extremity of the platform and the other for actuating the mounting means to elevate the opposite extremity of the plat-

form, whereby to move the platform to one or the other of two oppositely inclined positions according as one or the other of said two means is actuated, and to move the platform to a horizontal position in response to actuation of both of said two means, and means for latching the platform in its inclined and horizontal positions.

3. A packing stand comprising a support mounted for rolling movement, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means in an elevated position on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, and a second position wherein the box will be tilted in a reverse direction, means by which the mounting means can be actuated to dispose the box in one or the other of its positions, and means for releasably retaining the mounting in either of its positions.

4. A packing stand comprising a support mounted for rolling movement, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means in an elevated position on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, a second position wherein the box will be tilted in a reverse direction, and a third position wherein the box will be horizontally disposed, means by which the mounting means can be actuated to dispose the box in any one of its said positions, and means for latching the mounting means in any one of its said positions.

5. A packing stand comprising a support, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means in an elevated position on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, and a second position wherein the box will be tilted in a reverse direction, and foot operated means by which the mounting means can be actuated to dispose the box in one or the other of its positions.

6. A packing stand comprising a support mounted for rolling movement, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, and a second position wherein the box will be tilted in a reverse direction, and means by which the mounting means can be actuated to dispose the box in one or the other of its positions, said mounting means adapted to engage the floor when the first means occupies either of its positions, to thereby prevent rolling movement of the support.

7. A packing stand comprising a support mounted for rolling movement, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, a second position wherein the box will be tilted in a reverse direction, and a third position wherein the box will be horizontally disposed, and means by which the mounting means can be actuated to dispose the box in any one of its said positions, said mounting means adapted to engage the floor when the first means occupies its first and second mentioned positions, to thereby prevent rolling movement of the support, and adapted to clear the floor when the first means occupies its third mentioned position so as to render the support free for rolling movement.

8. A packing stand comprising a support, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means in an elevated position on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, a second position wherein the box will be tilted in a reverse direction, and a third position wherein the box will be horizontally disposed, means by which the mounting means can be actuated to dispose the box in any one of its said positions, and means for preventing displacement of the box from the first means under the action of gravity when the box occupies its first and second mentioned positions, yet being ineffective to prevent such displacement when the box occupies its third mentioned position.

9. A packing stand comprising a support mounted for rolling movement, means for supporting a box in which citrus fruit is adapted to be packed, means for mounting the first means on the support for movement to occupy one position wherein a box on the first means will be tilted in one direction, a second position wherein the box will be tilted in a reverse direction, and a third position wherein the box will be horizontally disposed, means by which the mounting means can be actuated to dispose the box in any one of its said positions, and means for preventing rolling movement of the support when the first means occupies its first and second mentioned positions, yet being ineffective to prevent such rolling movement when the first means occupies its third mentioned position.

10. A packing stand comprising a support, a platform for supporting a box, means for mounting the platform for movement on the support to occupy either of two oppositely tilted positions according as one extremity of the platform is raised and the opposite extremity lowered or vice versa, and to occupy a horizontal position according as both of said sides are raised, and means for actuating the

mounting to move the platform to any of its said positions.

11. A packing stand comprising a frame, a platform on which a packing box for citrus fruit is adapted to be supported, means for mounting the platform for movement on the frame to occupy either of two tilted positions and a horizontal position comprising a pair of members mounted for vertical movement in the frame and pivotally connected to the platform to raise or lower one side of the latter according as the members are raised or lowered, and a second pair of members mounted for vertical movement in the frame and pivotally connected to the platform to raise or lower the opposite side of the latter according as the second pair of members are raised or lowered, and two means, one for each of said pair of members, for actuating the pairs of members independently of each other.

12. A packing stand comprising a frame, a platform on which a packing box for citrus fruit is adapted to be supported, means for mounting the platform for movement on the frame to occupy either of two tilted positions and a horizontal position comprising a pair of members mounted for vertical movement in the frame and pivotally connected to the platform to raise or lower one side of the latter according as the members are raised or lowered, and a second pair of members mounted for vertical movement in the frame and pivotally connected to the platform to raise or lower the opposite side of the latter according as the second pair of members are raised or lowered, and two means, one for each of said pair of members, for actuating the pairs of members independently of each other, each of said two means comprising a foot actuated member, and a compounded lever system operatively connecting the foot actuated member and a pair of said members, and operable in response to a depression of the foot actuated member to raise the corresponding pair of members, and means for latching the foot actuated member in depressed position.

13. A packing stand as embodied in claim 11 wherein said platform comprises a pair of longitudinal spaced apart members, a pair of transverse members connecting the longitudinal members, and rollers spanning and journaled in the longitudinal members, on which a box is adapted to be directly mounted to facilitate rolling of the box onto and off of the platform.

14. A packing stand as embodied in claim 11 including stop members secured to the frame in such positions as to prevent displacement of a box from the platform under the action of gravity when the platform occupies its tilted positions.

15. A packing stand comprising a support, a platform, means for mounting the platform on the support for movement to occupy either of two oppositely inclined positions, two means, one for actuating the mounting means to move the platform to one inclined position and the other for actuating the mounting means to move the platform to the other extreme position, and means for latching the platform in one position or the other.

16. A packing stand comprising a support, a platform, means for mounting the platform on the support for movement to occupy either of two oppositely inclined positions, two actuating means separate from each other, one for moving the platform to one inclined position and the other for moving the platform to the other inclined position, and two means, one for releasably retaining the platform in one position and the other for releasably retaining the platform in the other position.

Signed at Fallbrook, in the county of San Diego and State of California, this 20th day of April, A. D. 1928.

FRED MYERS.

451

Defendant's Exhibit F

H. S. GREENBERG.

DINING SERVICE APPARATUS.

APPLICATION FILED MAR. 25, 1921.

1,384,191. Patented July 12, 1921.

Fig. 1.

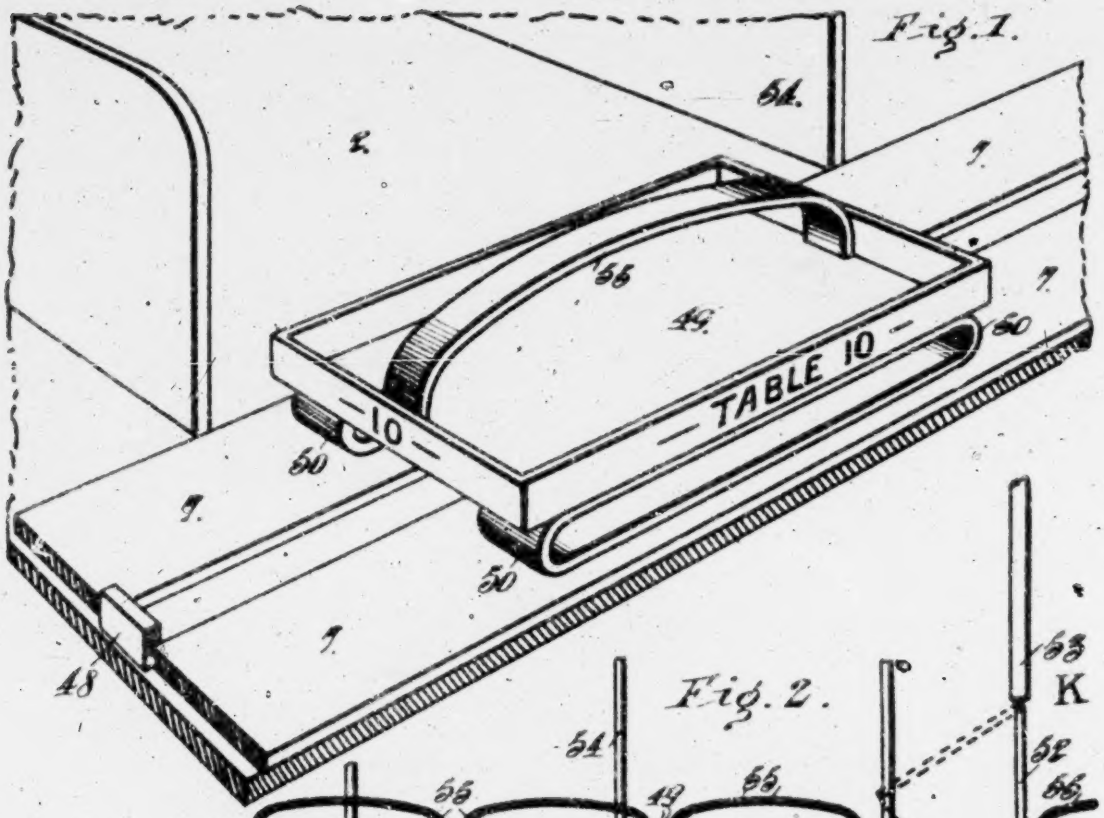


Fig. 2.

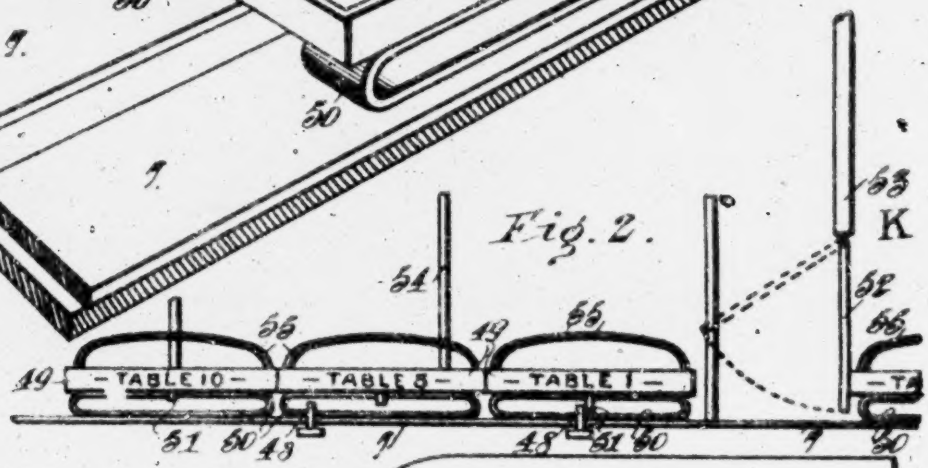
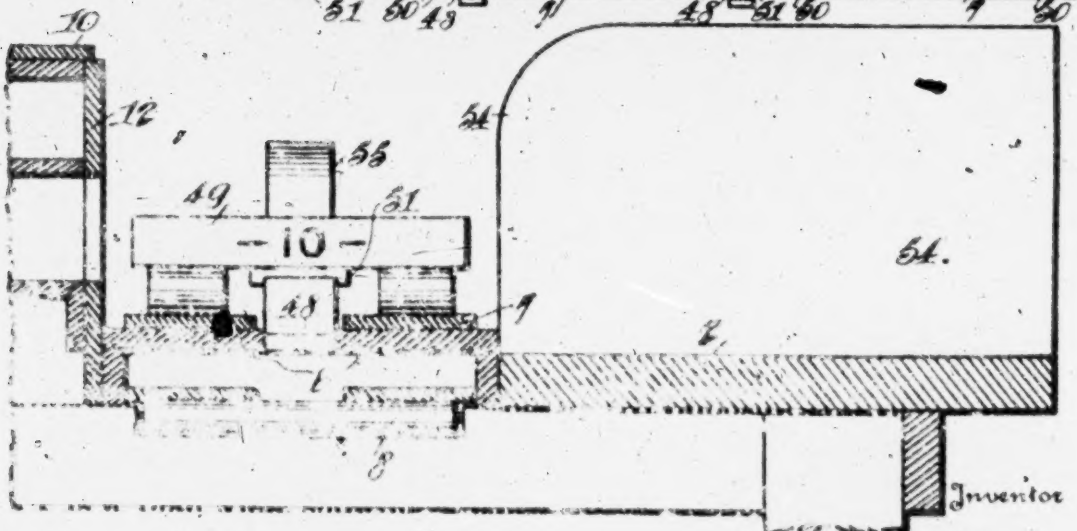


Fig. 3.



Inventor

Harry S. Greenberg

by Fred G. Dieterich Co

Attorneys

504

Defendant's Exhibit F

UNITED STATES PATENT OFFICE.

HARRY STEUBEN GREENBERG, OF DANVILLE, VIRGINIA.

DINING-SERVICE APPARATUS.

1,384,191. Specification of Letters Patent. Patented July 12, 1921.

Application filed March 25, 1921. Serial No. 455,415.

To all whom it may concern:

Be it known that I, HARRY S. GREENBERG, a citizen of the United States, residing at Danville, in the county of Pittsylvania and State of Virginia, have invented certain new and useful Improvements in Dining-Service Apparatus, of which the following is a specification.

My invention relates to certain new and useful improvements in dining service apparatus and particularly has for its object to provide an improvement in the apparatus which forms the subject matter of my copending application Serial No. 410,268, filed September 14, 1920.

In that application, I have disclosed a dining service apparatus which provides means whereby the patron may be served without employing waiters and without requiring the patron to leave his seat at the table or counter, the apparatus embodying means whereby the order card of the patron may be delivered to the kitchen and the order conveyed to the patron from the kitchen and the soiled dishes returned to the kitchen, the cook's duplicate check of the order being delivered to the cashier's desk, all without the necessity of employing waiters or servants for the purpose.

In the apparatus disclosed in my previous application, it was necessary for the patron to stop and start the conveyers which brought the trays from the kitchen to the patron's table in order to conveniently remove the tray from the conveyer.

My present invention has for its object to provide a modification of that system whereby if the patron fails to stop the conveyer when the tray arrives at its station, the tray will nevertheless be arrested at the station with which it is designed to coöperate and any other trays coming along behind it for stations in front of it, will be arrested until the first stopped tray has been removed.

Another object of the present invention is to provide trays of such design that flap doors may be used to close the conveyer passage between the dining room and kitchen, when no trays are passing, the trays being provided with guard means so that the flap doors will not break or interfere with the dishes on the tray.

The invention also resides in those novel features of construction, combination and arrangement of parts, all of which will be first fully described and then be specifically pointed out in the appended claims, reference being had to the accompanying drawings in which—

Figure 1 is a perspective view of a portion of my apparatus illustrating the present improvements.

Fig. 2 is a diagrammatic elevation showing the manner in which the trays are conveyed and stopped at the particular station desired.

Fig. 3 is an enlarged cross section of the same.

In the drawings in which like numerals and letters of reference indicate like parts in all of the figures, 2 designates the table, 6 the stepped up portion of the table on which the upper part of the endless conveyer belts 7 rest to sustain the load and 8 indicates the suitable guide rollers for the return fold of the conveyer 7. 12 designates the side walls which project up from the table at the back of the conveyers and form an inclosure for the check conveyers (not shown) and a stop for the return conveyer on which the trays are returned to the kitchen.

All of the foregoing parts may be of the same construction as shown in my previous application referred to, except that the conveyer 7 is a two part or divided conveyer instead of a one piece conveyer.

The two part or divided conveyer 7 has its parts separated to pass stops 48, which are arranged at each table place 2, the stops being of different elevations progressively increasing in height from the table station nearest the kitchen toward the table station farthest from the kitchen.

The trays 49, there being one for each table station, are preferably mounted on elevating members or skids 50 so as to elevate the trays proper a predetermined distance above the belts 7 to allow for the provision of stops 51 on the under side of the trays, the stops 51 projecting down only far enough to engage the particular stop 48 at the place where the particular tray is to be stopped, the longest projection 51 of a tray would be on the tray designed to stop at the first table place counting from the kitchen, while the shortest stop 51 would be on the tray designed to go the farthest distant from the kitchen K.

The trays may also be provided with suitable table numbers corresponding to the

table place where the patron sits so that in filling the trays in the kitchen, the kitchen attendant may know which tray to fill for the particular patron.

The trays are also provided with bridge members 55 which may serve as handles and also function to prevent the flap doors 52 in the wall 53 between the kitchen and dining room from breaking the dishes in the tray when the tray passes the opening.

If desired, partitions 54 may be provided between patrons' table places.

While I have disclosed a preferred embodiment of the invention, nevertheless it is quite obvious that modifications may be made without departing from the spirit of the invention or the scope of the appended claims and I do not wish to be understood as limiting myself to the precise details of construction shown and described.

What I claim is:

1. In apparatus of the class described wherein are provided a dining room and a kitchen, a table in the dining room and conveyers for bringing the trays of food from the kitchen to the table; of stop devices on the table and trays for engaging one another to arrest the travel of a tray at the particular station where the tray is intended to be delivered.

2. In apparatus of the class described wherein are provided a dining room and a kitchen, a table in the dining room and conveyers for bringing the trays of food from the kitchen to the table; fixed stop devices on the table projecting into the path of movement of the trays, the stop devices being successively longer from the first table station toward the last table station, and stop devices on the several trays designed to engage particular ones of the fixed stop devices to arrest the progress of the trays.

3. In apparatus of the class described wherein are provided a dining room and a kitchen, a table in the dining room and conveyers for bringing the trays of food from the kitchen to the table; said trays having bridge members, a wall between the dining room and kitchen having a flap door covering an opening through which said conveyers and trays pass, said bridge members being designed to protect the contents of the trays in passing the flap door.

4. In apparatus of the class described, the combination with a divided conveyer, fixed stop members adapted to project between the adjacent edges of the divided conveyer, trays adapted to be carried by said conveyers and fixed stop members on the trays designed to engage certain of the fixed stop members adjacent to the conveyers to arrest particular trays at particular places.

5. In apparatus of the class described, a tray comprising a body constituting a tray proper, devices on the underside of the tray proper for elevating the tray proper a predetermined distance and a bridge member on the top of the tray proper for the purposes specified.

HARRY S. GREENBERG.

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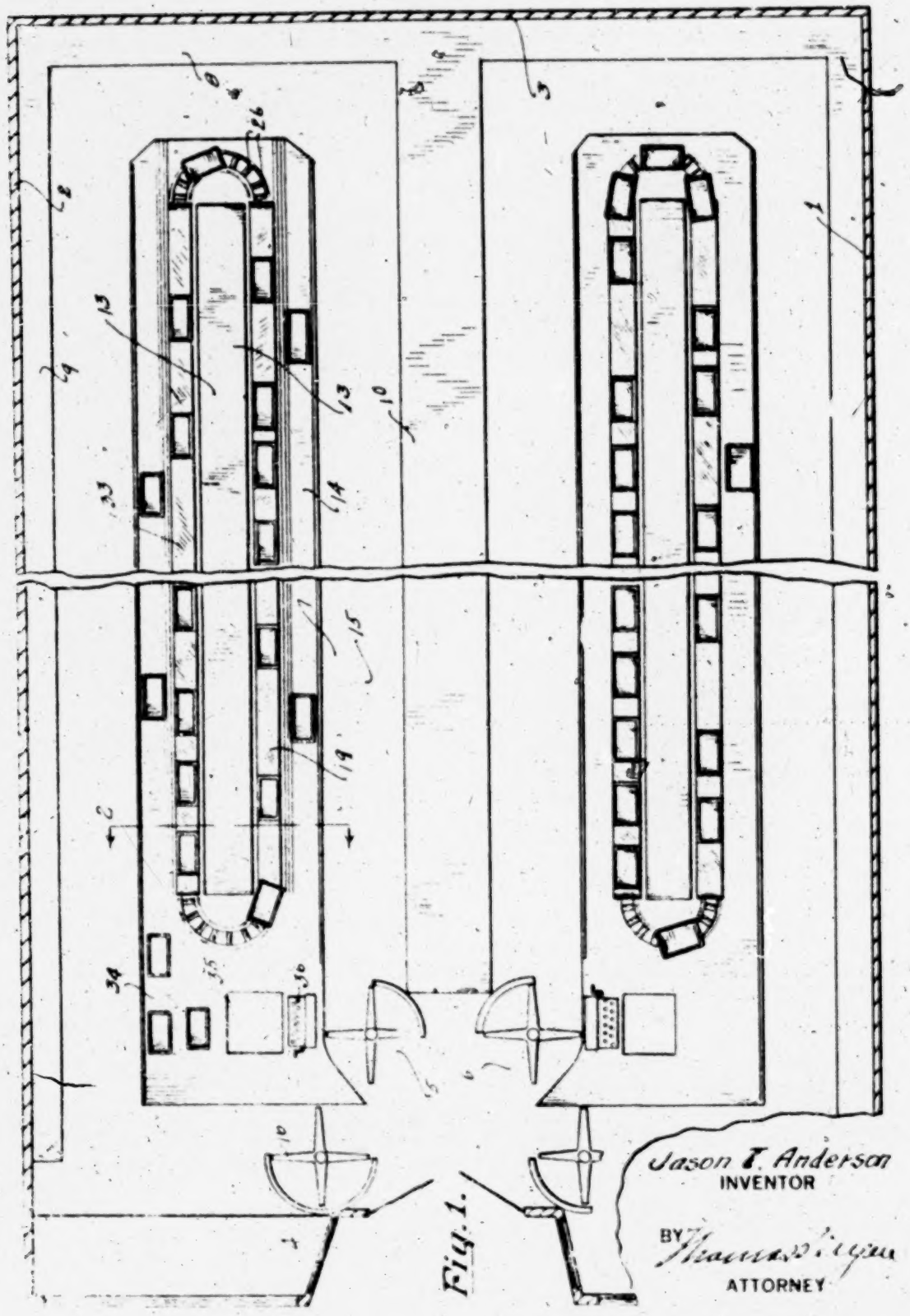
Defendant's Exhibit F

Jan. 13, 1931. J. T. ANDERSON 1,788,759

AUTOMATIC SELF SERVICING DEVICE FOR MERCANTILE STORES

Filed June 24, 1929 3 Sheets-Sheet 1



Jason T. Anderson
INVENTOR

BY Stevens & Ogden
ATTORNEY

Fig. 1.

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Jan. 13, 1931. J. T. ANDERSON 1,788,759

AUTOMATIC SELF SERVICING DEVICE FOR MERCANTILE STORES

Filed June 24, 1929 3 Sheets-Sheet 2

Fig. 2.

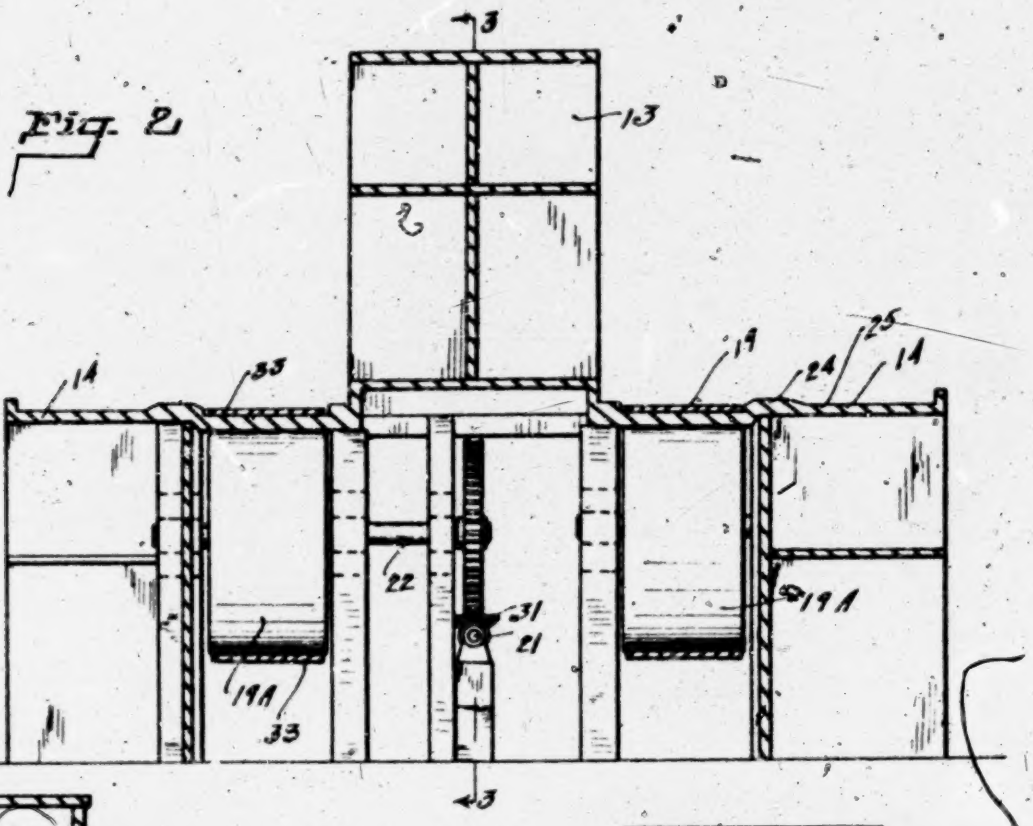


Fig. 3.

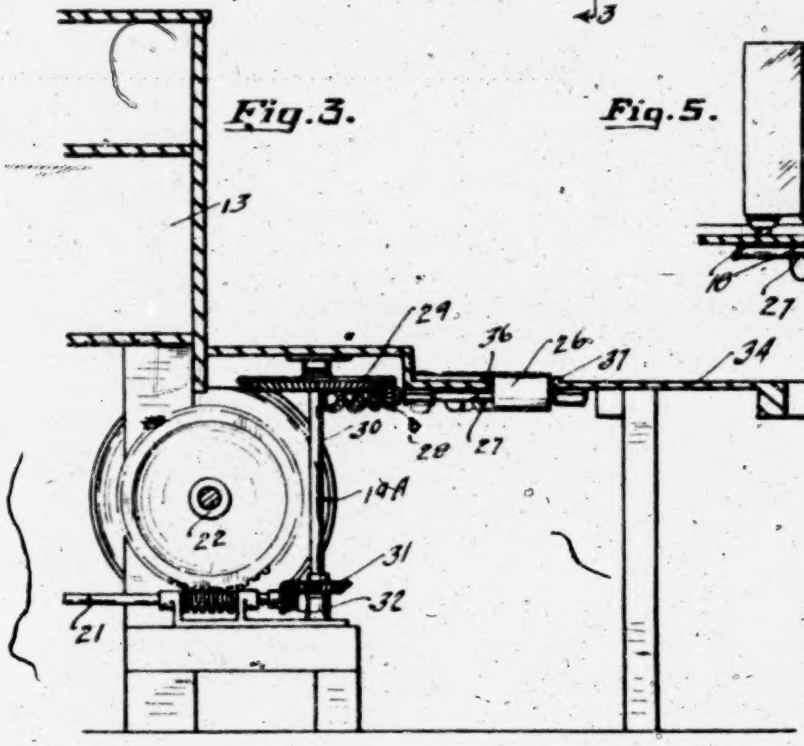
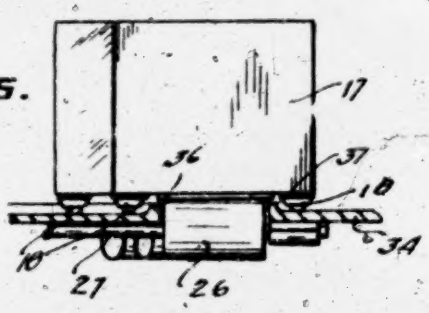


Fig. 5.



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BY Thomas Bilyeu
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456

Defendant's Exhibit F

Jan. 13, 1931. J. T. ANDERSON 1,788,759

AUTOMATIC SELF SERVICING DEVICE FOR MERCANTILE STORES

Filed June 24, 1929 3 Sheets-Sheet 3

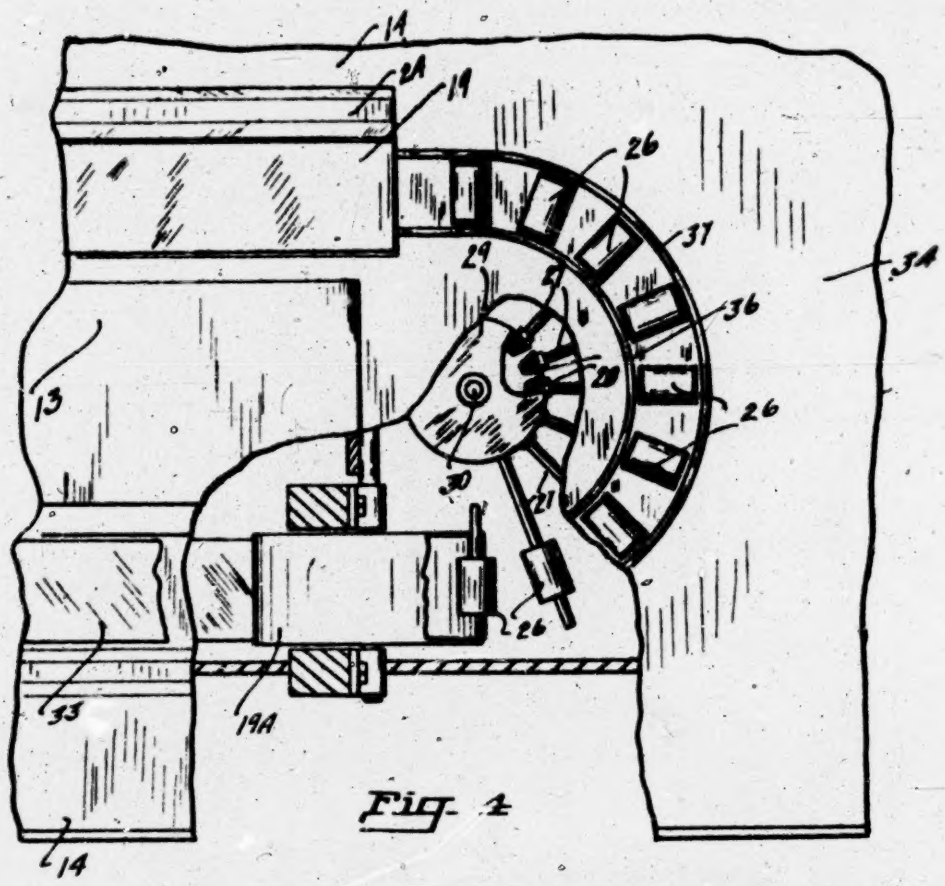

Fig. 4

Fig. 6

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INVENTOR

BY Thomas Lilyea
ATTORNEY

Defendant's Exhibit F

Patented Jan. 13, 1931 1,788,759

UNITED STATES PATENT OFFICE

JASON T. ANDERSON, OF HARRISBURG, OREGON

AUTOMATIC SELF-SERVICING DEVICE FOR MERCANTILE STORES

Application filed June 24, 1929. Serial No. 373,321.

My invention is intended for use in merchandise establishments and particularly in self-servicing merchandise establishments wherein the customer passes through a predetermined line of travel in his purchasing operation and wherein a conveyor is disposed central of and in the line of travel of the customer, the purpose of the conveyor is to carry a box or basket along the conveyor at will of the shopper as the articles purchased may be placed within a basket or box and be conveyed by the conveyor at the wish of the customer. The conveyor travel being at substantially the same speed of that of the purchaser thereby eliminating the carrying of the articles purchased.

The primary object of my invention is to speed up purchases in a self-servicing store, and to insofar as possible to eliminate undue burdens being placed upon the purchaser during the shopping operation.

A still further object of my invention is to provide service within a self-servicing store that will give the greatest of freedom to the shopper and to eliminate the carrying annoyance to the purchaser during his progress through the store.

And still further objects of my invention is to make available a maximum of merchandise display space within a self-servicing store.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:

Fig. 1 is a plan view of a duplex self-servicing store.

Fig. 2 is a vertical, sectional view, taken on line 2—2 of Fig. 1, looking in the direction indicated, the same is made to illustrate the conveyor mechanism and the shelving associated with the conveyor mechanism.

Fig. 3 is a fragmentary, sectional, end view of the driving mechanism for the conveyor and the elements associated therewith.

Fig. 4 is a fragmentary, top, plan view of the end section of the conveyor mechanism.

Fig. 5 is a perspective, end view of one of the conveyor boxes illustrated as being conveyed around the end portion of the conveyor mechanism.

Fig. 6 is a top, plan view of the duplex endless conveyor belts disposed at either side of the central display shelves and illustrating the prime mover for driving the same and the end driving elements for propelling the return end portion of the conveyor, not here shown.

Like reference characters refer to like parts throughout the several views.

I have illustrated in Fig. 1 a duplex store confined within side walls 1 and 2 and a rear wall 3, and having an entrance 4. The patrons when entering the store may enter either side of the store through turnstiles 5 and 6. Since each of the compartments of the store are similar, I will describe but one of the compartments. A central shelf 7 runs central of the store to be entered. Entrance being had through the turnstile 5. A rear shelf 8 extends across the rear end of the store and a shelf 9 extends adjacent the side walls of the compartment. Central shelvings 10 and 11 run longitudinally and centrally of the store compartments. An endless counter 14 adjacent the central shelving but spaced apart therefrom so that the customer entering the turnstile 5 is passed into an aisle 15 that runs longitudinally of the store and between the adjacent side wall shelving and the central shelf and counter. The customer will emerge from the aisle 15 through the turnstile 16, and will pass the clerk, who will attend to the pricing of the articles purchased and the collecting of payment therefor. The customer on entering the turnstile 5 is given a movable transfer box 17, as illustrated in detail in Fig. 5, the same being made preferably light in construction to facilitate ease in handling. The box is placed upon an endless transfer belt 19, running longitudinally of the central portion of the store. The endless trans-

fer belt 19 is in continuous operation, the same being driven by any suitable prime mover, as by an electric motor 20, illustrated in Fig. 6. The motor 20 is adapted through suitable gear or chain mechanism to drive the shaft 21, and the shaft 21 in turn drives the respective shafts 22 and 23. The customer on entering the store has his transfer box placed upon the transfer belt 19 and the same moves therealong at substantially the rate of purchase travel of the customer and articles may be selected from the respective shelves or bins and be placed within the box. Should the rate of travel of the transfer box 17 be greater than the rate of travel of the purchasing customer, the box may be pulled over the ledge 24 on to the counter 25 and be filled, or articles purchased be placed therein. When it is desired to move on down the aisle, the box may be pushed over the ledge 24 again back on the endless transfer belt 19. Disposed at the end of the room are a series of transfer rollers 26. The transfer rollers being mounted upon driving shafts 27. Bevel pinions 28 disposed upon shaft 27 are in registerable engagement with a master bevel gear 29 that is adapted for being driven from the shaft 21. The bevel gear 29 is secured to the vertical shaft 30 and the vertical shaft 30 has a second bevel gear 31 secured thereto that is driven by the bevel pinion 32 that is secured to the outer end of the motor driven shaft 21. The rolls 26 disposed upon the shaft 27 are shorter in length than the width of the transfer belt 19 in order that the trunnions 18 disposed upon the transfer box 17 may pass between the trunnions disposed upon the oppositely disposed corners of the transfer box 7. The rollers 26 are slightly higher in horizontal surface alignment than the top surface of the transfer belt, in order that the transfer box may be lifted clear of the belt, and the rollers are driven at a speed that will transfer the box at a slightly higher rate of speed than would be accomplished by the belt. The upper surface of the rollers engaging the under side of the box with the trunnion wheels disposed at either side of the box for maintaining the box upon the rollers, as the box is transferred around the end from the transfer belt 19 to the transfer belt 33 disposed upon the oppositely disposed side of the central transfer shelving. Segments of circles 36 and 37 may be placed at either end of the rollers to prevent the trunnion wheels from contacting with the end of the rollers and to train the box about the rollers and maintain the same in trained alignment and position.

Disposed upon the opposite end of the transfer are a similar series of driven rollers. An enlarged counter head 34, is disposed at the delivery end of the transfer unit in order that the clerk disposed within the service well 35, may transfer boxes to and from the customer. A suitable accounting unit, as a cash register 36, is disposed adjacent the service well 35. After the articles have been transferred from the transfer box disposed upon the counter 34, the same may then be placed back upon the transfer unit or stacked for use of future customers. After the purchase has been completed, the customer leaves the store through the turnstile 16.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:

1. In a device of the class described, in combination in a store building of shelving disposed along one end and two sides of the room and shelving disposed longitudinally of the room with a passageway disposed between the respective shelving, inlet and exit turnstiles leading into and away from the passageway, a continuous running endless conveyor disposed about the central shelving, a counter disposed between the passageway and the conveyor and shopping boxes adapted to being carried upon the conveyor.

2. In a device of the class described, a store room, an entrance to the store room, shelving disposed across one end and two sides of the room and also longitudinally of the central portion of the room, a continuous running conveyor running around the central shelving, a counter running adjacent the conveyor, a shopping passageway disposed between the side and end shelving and the counter and shopping boxes having trunnion supports adapted for being carried around the conveyor and for being transferred to and from the belt and the counter upon trunnion wheels.

3. In a device of the class described, a store room having shelving disposed at one end and two sides of the room, central shelving disposed longitudinally of the room with a continuous running transfer disposed about the central shelving, a counter surrounding the central shelving and the upper surface of the shelving being substantially in alignment with the upper surface of the transfer and shopping boxes adapted to being transferred by the transfer and for being moved to and from the transfer to the counter.

JASON T. ANDERSON.

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Oct. 26, 1937. L. F. CLERC 2,096,959

STORE

Filed Dec. 26, 1935 5 Sheets-Sheet 1

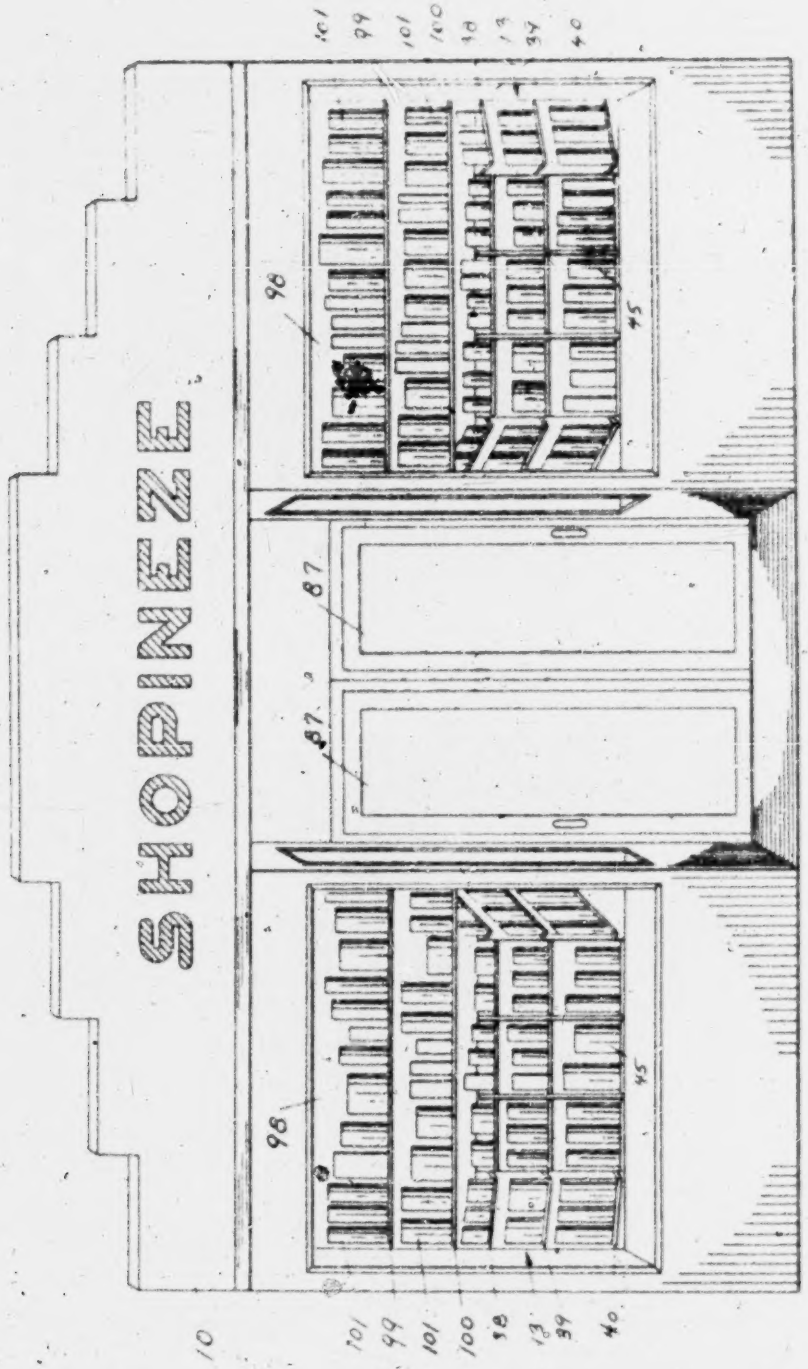

Fig. 1

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STORE

Filed Dec. 26, 1935 5 Sheets-Sheet 2

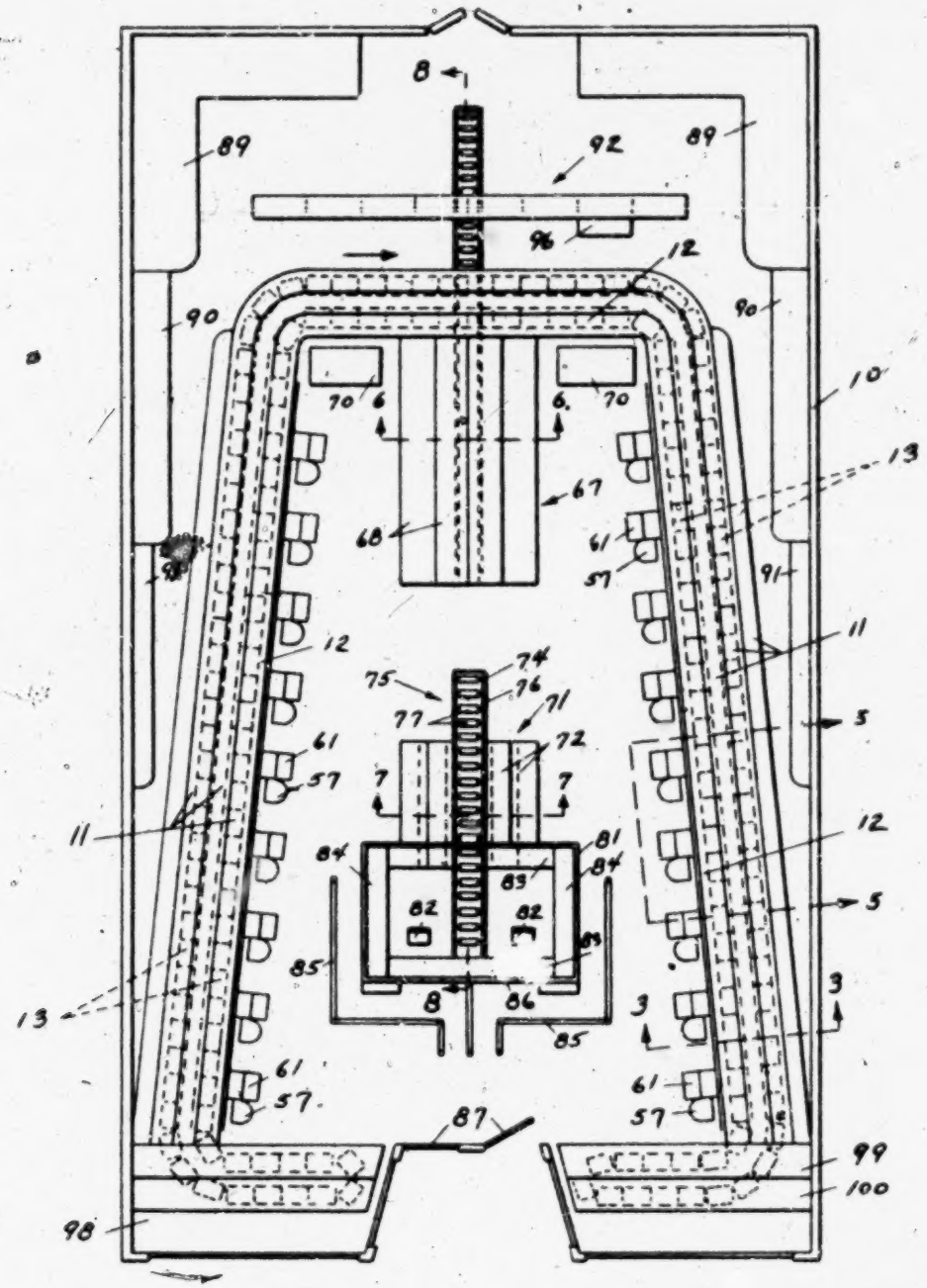

Fig. 2

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STORE

Filed Dec. 26, 1935 5 Sheets-Sheet 3

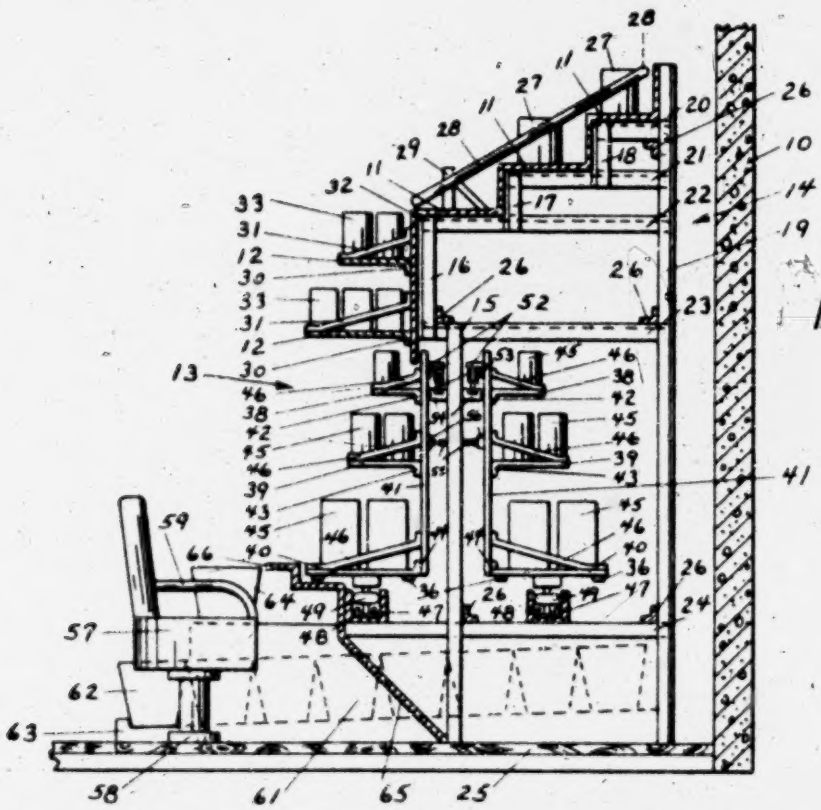

Fig. 3

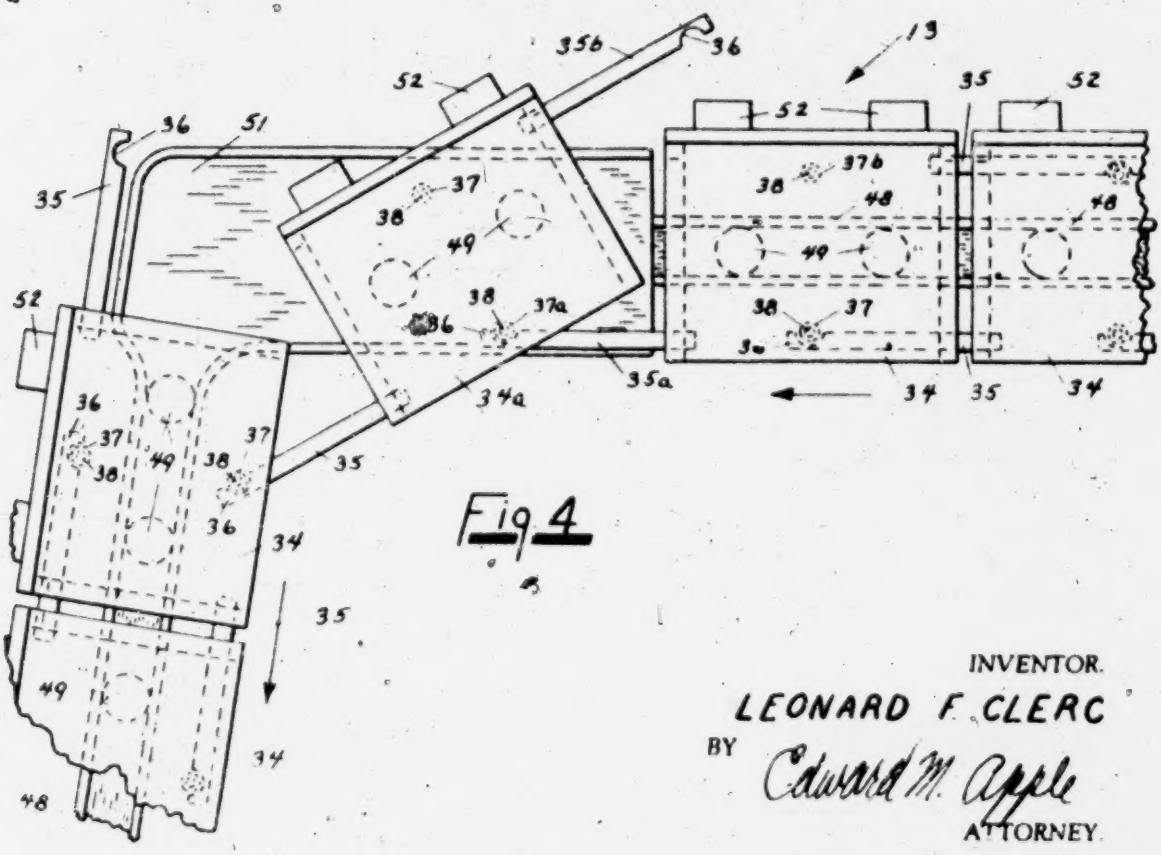

Fig. 4

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STORE

Filed Dec. 26, 1935 5 Sheets-Sheet 4

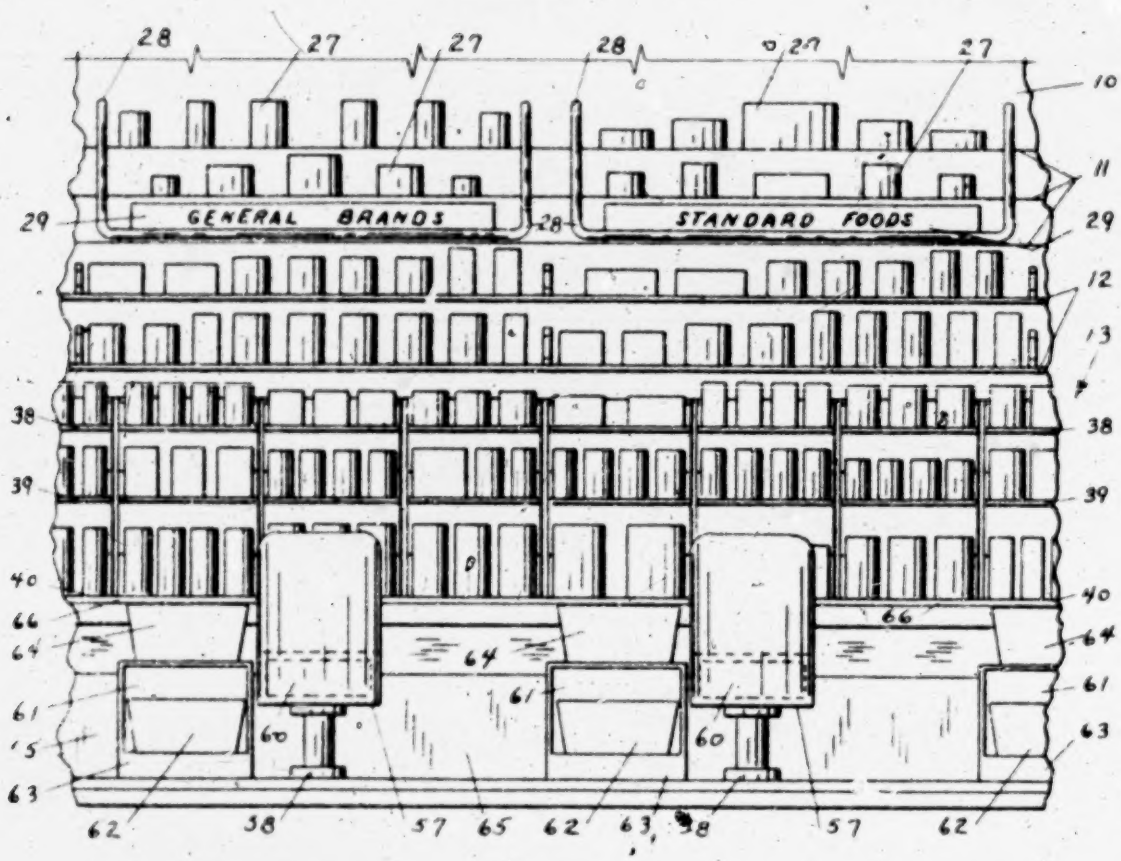

Fig. 5

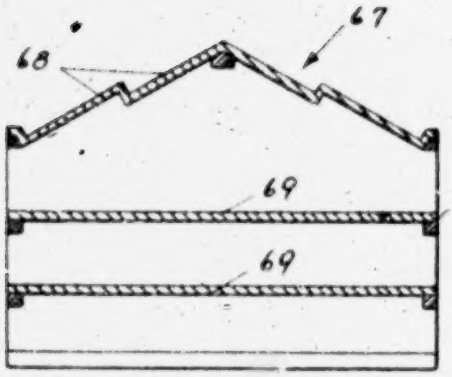

Fig. 6

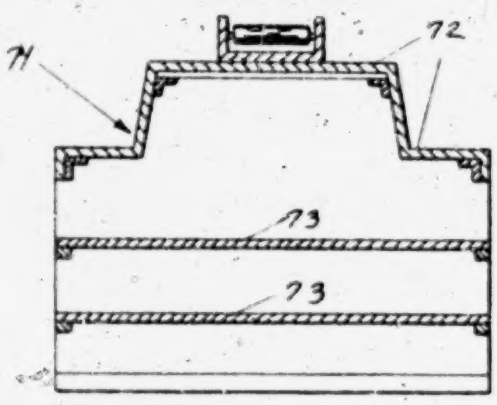

Fig. 7

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SCORE

Filed Dec. 26, 1935 5 Sheets-Sheet 5

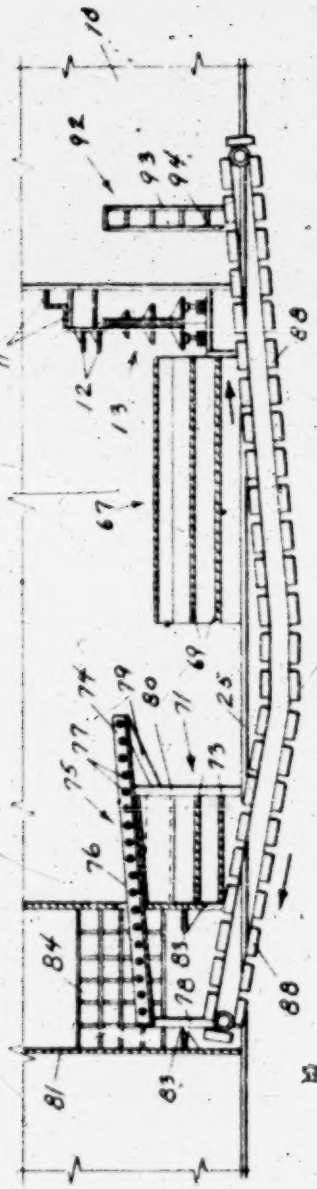

Fig. 8

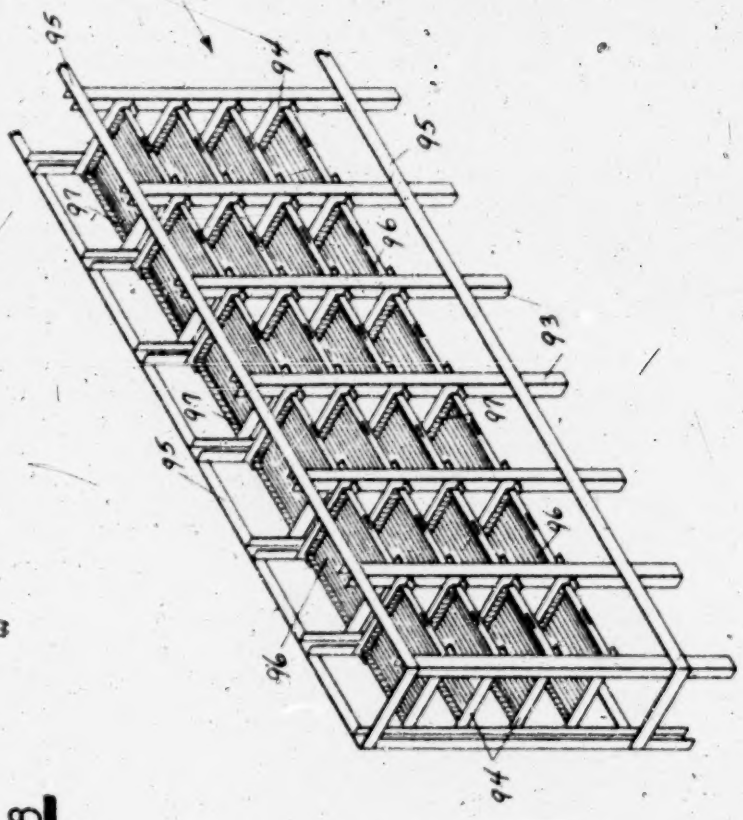

Fig. 9

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Patented Oct. 26, 1937

2,096,959

UNITED STATES PATENT OFFICE

2,096,959

STORE

Leonard F. Clerc, Detroit, Mich.

Application December 26, 1935, Serial No. 56,131

3 Claims. (Cl. 186—1)

This invention relates to a store system and has particular reference to means and methods of retailing merchandise to customers in a store.

Heretofore, the common practice in grocery stores, meat markets, fruit and vegetable markets, and the like, has been to stock the merchandise on shelves and to sell it to the customers in an "over the counter" service. This service necessitated a number of clerks who waited on individual shoppers, took their orders, selected the ordered goods from the shelves, put the merchandise in bags, and charged the customer for the merchandise bought. The inefficiencies of this age-old system are readily apparent, and include unnecessary clerical cost, slow service and prolonged waiting by customers when the store is busy, loss of many possible sales by lack of efficient display of the merchandise stocked, and numerous other disadvantages.

More recently an improved type of store has been introduced, in which the customer serves himself. The merchandise is displayed on shelves and the customer selects the products he wishes and presents them to the cashier, who totals the prices and charges the customer for them in a manner similar to the well-known cafeteria or serve-self restaurant. Although this system has some notable features, it has many disadvantages, including the objectional effort necessary for the customer to locate the merchandise desired.

The present invention obviates the disadvantageous features of the former methods and has for its principal object the provision of a means for efficiently selling merchandise, produce, groceries, eats and other commodities to individual customers in a store.

Another object of the invention is the provision of means whereby the entire selection of merchandise in the store is moved past each customer, who may be comfortably seated in a chair.

Another object of the invention is the provision of means whereby the customers may select merchandise from stationary shelves or racks, if desired.

A further object of the invention is the provision of means for restocking the moving conveyors or shelves, without interfering with their operation.

A still further object of the invention is the provision of means for bundling individual orders, checking them if desired, delivering them to the customers, and receiving the payment thereof.

An advantageous feature of the invention resides in the ease, comfort, and speed with which the customers may shop.

Another advantageous feature of the invention resides in the increased number of customers which may be handled in smaller stores and with smaller clerical forces than in any present known system.

Another object of the invention is to increase sales by an efficient method of displaying the stock carried.

Other objects and advantages of the invention will appear as the description proceeds.

The invention resides in the improved store system, and in the combination and arrangement of parts, and of functions thereof, the novelty of which will be particularly pointed out and distinctly claimed hereinafter.

In the accompanying drawings, which constitute part of my disclosure I have fully and clearly illustrated a preferred embodiment of the invention wherein:

Fig. 1 is a front elevation of a store constructed in accordance with my invention.

Fig. 2 is a plan view of the floor layout of the store illustrated in Fig. 1.

Fig. 3 is an enlarged vertical section taken on line 3—3 of Fig. 2.

Fig. 4 is an enlarged fragmentary plan view of a portion of the moving conveyors employed in my store, and illustrates the means of guiding the separate units, and the connection means therebetween.

Fig. 5 is an enlarged fragmentary view taken on line 5—5 of Fig. 2.

Fig. 6 is an enlarged vertical section taken on line 6—6 of Fig. 2.

Fig. 7 is an enlarged vertical section taken on line 7—7 of Fig. 2.

Fig. 8 is a longitudinal, vertical section taken on line 8—8 of Fig. 2.

Fig. 9 is an enlarged perspective view of a portion of the racks employed in the storage section of the store from which merchandise is transferred to the conveyor system.

In general, my invention comprises the combination, in a retail store, of means for storing merchandise, means facilitating the handling of said merchandise, and means for selling merchandise to customers with a maximum of ease and efficiency. Three separate methods of purchasing goods are available to the customers in my store, any one of which or any combination of which may be used, depending upon the customer's individual preference. Facilities are available for waiting upon customers in the usual manner by clerks, and means are also provided whereby the customers may personally se-

lect their purchases from shelves upon which merchandise is displayed in a certain definite classification for ease in locating same. In addition, I provide a new and novel service, wherein the customers select their merchandise while seated in comfortable chairs, by means of a conveyor system which moves the stock past the seated customer.

Upon reference to the accompanying drawings it will be noted that I have illustrated herein, physical means for carrying out the purposes of my invention. Certain modifications are possible and are within the scope of the invention, but the embodiment disclosed herein is preferred because of its many advantageous features, as hereinafter described.

Fig. 2 diagrammatically illustrates the floor layout of my store, which is housed in a conventional building designated by the reference character 10 and which includes the display shelves 11, the stationary shelves 12 and the movable shelves 13 the latter being shown in dotted lines.

The display shelves 11 are positioned along the sides and the rear of the store near the top thereof and serve to effectively advertise a portion of the stock carried. As shown in Fig. 3, the shelves 11 are supported by means of a framework 14 comprising the vertical members 15 to 19 inclusive, and the horizontal members 20 to 24 inclusive. The aforesaid supporting members are preferably L shaped angle bars, but may be of any other suitable construction, and are bolted, riveted, welded or otherwise suitably fastened together. The lower ends of the vertical members 15 and 19 are fixedly secured to the floor 25 of the store 10, and the whole structure is longitudinally braced by means of the members 26, to form a rigid framework.

The display shelves 11 are placed above the customer's reach, and carry sample or empty display packages 27 (Figs. 3 and 5). It is intended to classify the sample containers 27 by brands or by manufacturers and to separate each such classification by neon tubes 28. Different colors may be used in adjacent sections to attractively divide the brands. Upon the lower display shelf is positioned a sign 29 which has the brand name or the manufacturer's name printed thereon. Advertising posters might be used with the above described display, but it is thought that the arrangement proposed herein will serve to attract the customers' attention and will act as an effective advertising medium by associating the various products sold by each manufacturer.

Also fixedly secured to the above described framework 14 are the stationary shelves 12, the latter being positioned below and in front of the display shelves 11, and at a height enabling them to be easily reached by persons standing. The shelves 12 are preferably formed with downwardly disposed flanges 30 at their rearward edges to enable them to be fastened to the framework 14 and are braced by the inclined supporting members 31. A panel 32 is placed at the back of the shelves to shield the framework 14 from view and to act as a retaining wall for the food containers 33 which are placed on said shelves. It is intended to position the merchandise in a definite order and classification on the shelves 12 and to label and number all such merchandise so that it can readily be located. Printed lists or store directories (not shown) may be employed to enable the customers to make their selections quickly and accurately. The function of the stationary shelves 12 is to provide a means whereby individual customers may wait upon themselves if they so desire, and also means enabling clerks to wait upon customers who desire such service.

Positioned below the stationary shelves 12 and supported by the framework 14 are the moving shelves which are designated generally by the reference character 13, Figs. 1–5 inclusive. Upon reference to Fig. 4 it will be noted that the moving shelves 13 comprise a plurality of relatively small units 34 which are continuously connected together and arranged to travel in any predetermined route, one such path being shown in Fig. 2. The particular arrangement of the route of the units 34 is dependent upon the size and shape of the building in which it is to be installed, and should be such that a minimum of space is occupied. It is important, however, that the total length of the connected units 34 be sufficient to enable the entire selection of merchandise to be placed thereon, and also so that the movement of the units will be sufficiently slow to permit the customers to make their selections of merchandise therefrom. At the same time it is desirable to have all the merchandise pass each customer in as short a time as possible in consideration of the foregoing requirements.

I prefer to connect the units 34 together by flexible yet stable means, as shown in Fig. 4 and hereinafter described. The connection means should be such that the separate units 34 may be placed close together to minimize waste space and also so that the continuous conveyor system may readily turn corners and make sharp U turns. To accomplish this, longitudinally extending arms 35 are rigidly secured to the underneath side of the units 34 at diagonally opposed corners thereof, and are formed with the hook-shaped outer ends 36, the latter being arranged to operatively engage the vertical rollers 37 which are rotatably mounted upon the axles 38 secured to the underneath side of the units 34. The rollers are positioned substantially at the middle of the longitudinal sides of the units 34. The arrangement is such that when the units are traveling in a straight line motion the adjacent cars are held together by the above described arms 35 and the rollers 37. Upon reaching a curve, however, the units 34 partially break apart in a manner substantially as shown by the unit 34a (Fig. 4). The inward side of the units are continually held in connection by the aforementioned engagement of the arm 35a and the roller 37a, but the first turning motion of the unit 34a causes the arm 35b on the opposite or outward side of the unit to swing outwardly, disengaging it from the roller 37b of the following unit. The turning of the unit 34a occurs about the axis of the roller 37a which, being freely rotatable, readily permits such motion. Upon completing the turn the units 34 swing into line in their new direction of travel and the previously disengaged arms 35 and rollers 37 on the outward side of the curve become operatively engaged again. From the above it will be noted that I have devised a simple yet practical method of forming a continuous system of units.

Each unit 34 consists of a plurality of shelves 38, 39, and 40 (Fig. 3), said shelves being positioned one above the other and secured to a back plate 41. The shelves 38 and 39 have downwardly disposed flanges 42 and 43 at the rear edges thereof, for the purpose of fastening them to the back plate 41. The lower shelf 40 has an upwardly disposed flange 44 at its rearward edge so that it will not interfere with the swinging

movement of the arms 35 therebelow when the units are going around curves. To enable the shelves to carry the weight of the merchandise 45 placed thereon, supporting braces 46 are positioned at each end of said shelves and suitably secured to the shelves 38, 39 and 40 and the back plate 41. The braces 46 also function to prevent longitudinal displacement of the merchandise 45 upon the shelves. It is also desirable to form a retaining edge around the shelves for the same purpose.

The upper shelf 38 is not as deep as the middle shelf 39, and likewise the shelf 39 is shallower than the lower shelf 40, permitting the customers to easily reach any article on any of the shelves. To accommodate articles of various heights and to efficiently utilize the shelf space upon the units 34, I prefer to make the two upper shelves 38 and 39 adjustable, by any suitable means (not shown).

The units 34 are supported upon the vertically disposed wheels 47 (Fig. 3) which are arranged to travel in the U shaped channel members 48, the latter being fixedly secured to the horizontal members 24 of the framework 14. The wheels 47 are freely rotatable upon their respective axles. To prevent lateral displacement of the units 34 from their predetermined path of travel, I provide the horizontally disposed wheels 49 which are rotatably mounted upon vertical axles depending from the underneath side of said units, and which are arranged to travel in the aforementioned channel members 48 and to ride against the vertical bearing surfaces formed by the upwardly disposed flanges of said members 48. The wheels 47 and 49 are positioned substantially along the longitudinal centerlines of the units 34 near each end thereof, to form stable supports and guides for the units. As shown in Fig. 4, the channel members 48 are considerably widened at the curves, as at 51, to enable the units to swing about into their new line of travel, as hereinabove described.

In order to stabilize the upper portion of the units 34 and to prevent lateral displacement thereof, I provide brackets 52 (Fig. 3) mounted upon the rear portion of the units, and vertically disposed wheels 53 rotatably mounted thereunder, said wheels being arranged to travel in the grooves formed in the U shaped channel members 54, the latter being secured to the upright members 15 by bolting, riveting, welding or any other suitable means.

Power to actuate the continuous system of units 34 may be derived from any suitable source (not shown) and motivates the sprocket chain 55 (Fig. 3) which is suitably mounted upon the framework 14, and particularly upon the vertical members 15. The chain is adapted to engage projections 56 secured to the back of the panels 41 to move them at the proper speed. It is advisable to arrange the chain so that it engages the units only on the straight-a-ways, so that they may be free to be carried around curves by connection between the units, as hereinabove described.

At spaced intervals along the conveyor system are positioned the chairs 57 (Fig. 2) which enable the customers to be comfortably seated while making their purchases from the moving shelves. The chairs are rotatably mounted upon bases 58 to facilitate seating the customers, said bases being fixedly secured to the floor to keep them in place. If desired a spring return arrangement (not shown) may be employed to keep the chairs 57 in orderly alignment when not in use. Arms 59 are provided on the chairs and a parcel compartment 60 (Fig. 5) is formed underneath the seat for the customer's convenience.

Adjacent the chairs 57 are placed basket racks 61 (Figs. 2, 3 and 5) which contain baskets 62 for the customer's use. The rack is inclined, as shown in Fig. 3 so that a plurality of empty baskets placed therein will automatically slide by gravity into a position where they can be readily reached from the customer's chair 57. A stop 63 is positioned at the lower end of the rack to hold the baskets in place. The particular basket in use by the seated customer is placed upon the top of the rack as indicated by the numeral 64 in Figs. 3 and 5. Each basket is provided with a duplicate set of numbered tags, one of which always remains on the basket, the other being retained by the customer to identify his or her purchase at the delivery section hereinafter described. Sufficient space is allowed between adjacent chairs 57 and basket racks 61 to permit persons standing to reach the stationary shelves 12 without interfering with the people seated.

Extending upwardly from the floor 25 of the store 10 is a panel 65 (Fig. 3) which is secured to the floor and to the members 24 and 46. The panel is so arranged that sufficient room is provided underneath the shelf 40 for the customer's legs and feet. The top of the panel 65 has a horizontal extension portion 66, which serves as an arm rest for the persons seated and which also extends a slight distance above the level of the lower shelf 40 for the safety of the customers. I propose to associate with the member 66, a buzzer system or other means of communication with the delivery section 81, so that the customer will be able to communicate with the delivery section when he or she desires to leave his or her position in front of the moving conveyor.

Perishable commodities such as fruits and vegetables are arranged upon the rack designated generally by the numeral 67 in Figs. 2, 6 and 8. I prefer to centrally locate the rack 67 so that it will be convenient for the customers to use, who may either wait upon themselves or secure the assistance of clerks if they so desire. The rack 67 is formed with the inclined tiers 68 on its upper surface and is also provided with the shelves 69 upon which the commodities are placed.

Located near the rack 67 are the meat containers 70, within which packaged meats of all kinds are stored. Dry ice is preferably used to keep the meats cold and suitable doors enable the customer to make his own selections.

I also provide an additional rack 71 (Figs. 2, 7 and 8) which may be used for baked goods and the like. The rack 71 has a top 72 arranged in tiers and a number of shelves 73 arranged to accommodate the baked goods.

When the customers have finished shopping by means of the hereinabove described methods, their baskets, which are now filled with their purchases, are carried by attendants to the central portion of the store and placed upon the upper end 74 of the inclined runway 75 (Figs. 2 and 8). The runway 75 is formed with retaining edges 76 to prevent the baskets from falling off the sides thereof, and is equipped with a plurality of rollers 77, the latter being rotatably mounted therein. The runway is positioned on top of the rack 71 and extends beyond either end of said rack being supported and braced by the supporting members 78, 79 and 80 (Fig. 8).

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The runway 71 extends downwardly from the high end 74 into a small partitioned room or booth 81, within which a clerk or cashier places the contents of each basket into paper bags and totals the value of each customer's purchases. To accomplish this the booth is provided with chairs 82 and shelves 83 and is also equipped with a plurality of divided shelves 84 wherein the bags are placed pending the arrival of the customers to claim them. This permits the checking of purchases should the customer desire to do additional shopping elsewhere before returning home. Partially around the outside of the booth 81 is positioned a railing 85 (Fig. 2) which enables the customers to pass in front of the booth where they pay the cashier and receive their purchases through the window 86. The railings 85 then lead directly to the doors 87 of the store 10.

Should the customers desire to have their purchases delivered to them at their home, the clerk in the booth 81 places the bags containing the merchandise upon the conveyor 88 (Fig. 8) which carries them to the rear of the store for loading onto a truck. The conveyor 88 may be of any suitable type and is dipped as shown in Fig. 8 to enable it to pass below the floor 25 so that it will not prevent customers from walking across the store. The operator at the rear of the store should operate the conveyor to enable him to reach the bags when he is ready for them.

The rear portion of the store is partitioned from the sales department and serves as a storage section for surplus stock, which is stored upon the shelves 89, 90 and 91. In addition, means are provided for loading the moving shelves 13 when the stock of merchandise thereon becomes depleted because of sales. Said means comprises a loading rack 92 (Figs. 2, 3 and 9). The rack 92 consists of an open supporting framework which is made up of the upright U shaped channel members 93, the transverse L shaped track members 94, and the longitudinal braces 95. The above mentioned members are secured together by welding, riveting, bolting or any other suitable means. Arranged to slide upon the track members 94 are the trays 96 which are formed with upwardly extending retaining edges 97. The trays 96 are extendible at either side of the rack and are filled with stock at the rear side thereof and then pushed into the rack. To load the moving shelves 13 the operator stands between the rack 92 and the moving shelves, pulls out the trays 96 upon which the merchandise to be transferred has previously been placed, and transfers the commodities to the shelves 13 as they pass by. To enable the loading to be done efficiently the trays 96 are loaded in such a manner that the operator can work continuously from one end of the rack to the other end while loading, thus eliminating time lost by unnecessary moving about while loading.

For the purpose of display, I prefer to arrange the window space 98 of my store as shown in Fig. 1. The two shelves 99 and 100 are stationary and display typical merchandise 101 thereupon, while the space below them is occupied by the moving shelves 13, which are arranged as shown in Fig. 2 to pass through the front of the store where they can be viewed through the windows. This feature forms an attractive window display since it is constantly changing and since it enables outsiders to see the entire stock move through the window space 98.

From the foregoing description it will be readily seen that I have devised a novel store comprising many advantages. The particular arrangement of parts of the store illustrated in the accompanying drawings may be varied considerably without departing from my fundamental system.

Although I have herein disclosed a certain embodiment of the invention, it will be understood that various modifications may be employed without violating the spirit of the invention, all of which are intended to be within the scope of the appended claims.

Having described my invention, what I claim and desire to secure by Letters Patent is:

1. A display arrangement for a store or the like, comprising the combination of a framework consisting of a plurality of upright and cross members, shelves on top of said framework, means on said framework for supporting an endless conveyor below said shelves, an endless conveyor arranged to travel on said last named means, shelves on said conveyor, and an angularly disposed skirt member supported by said framework terminating in a counter piece.

2. A display arrangement for a store or the like comprising the combination of a framework arranged in a U shaped manner within the store, the open portion of said U facing the front of said store, said framework consisting of a plurality of upright and cross members, shelves on top of said framework, means on said framework for supporting an endless conveyor below said shelves, an endless conveyor arranged to travel on said last named means, shelves on said conveyor, and an angularly disposed skirt member supported by said framework terminating in a counter-piece.

3. A display arrangement for a store, comprising the combination of a U shaped framework, the base of said U being positioned adjacent the rear of said store, said framework consisting of a plurality of upright and cross members, shelves on the top of said framework, means on the front upright members of said framework for supporting and guiding an endless conveyor arranged to travel below said shelves in front of and behind said front upright members, an angularly disposed skirt member supported by said framework terminating in a counter-piece, and inclined chutes supported by said framework below said counter, said chutes extending beyond the front edge of said counter.

LEONARD F. CLERC.

Defendant's Exhibit F

March 5, 1929. C. W. BUTLER 1,703,987

STORE DELIVERY APPARATUS

Filed Oct. 25, 1926

Fig 1

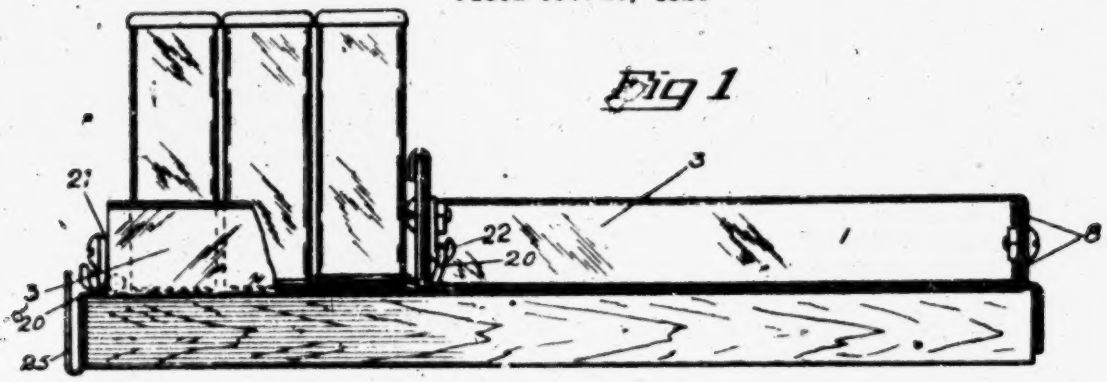


Fig. 2

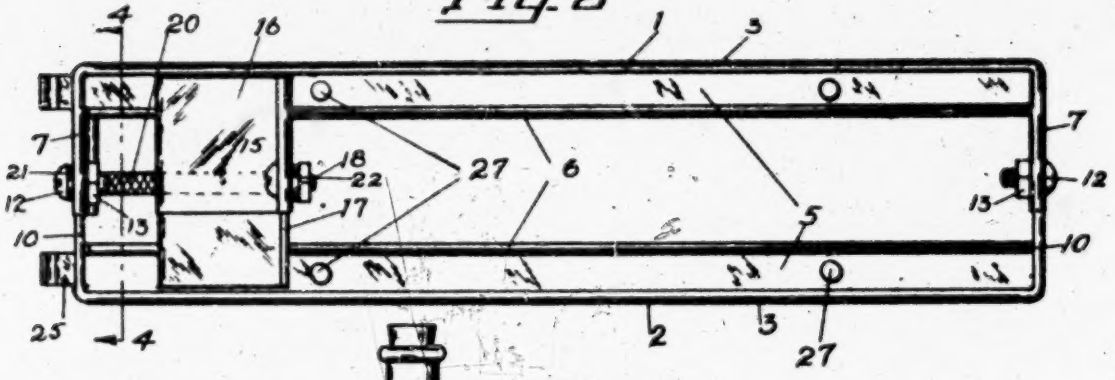


Fig. 3

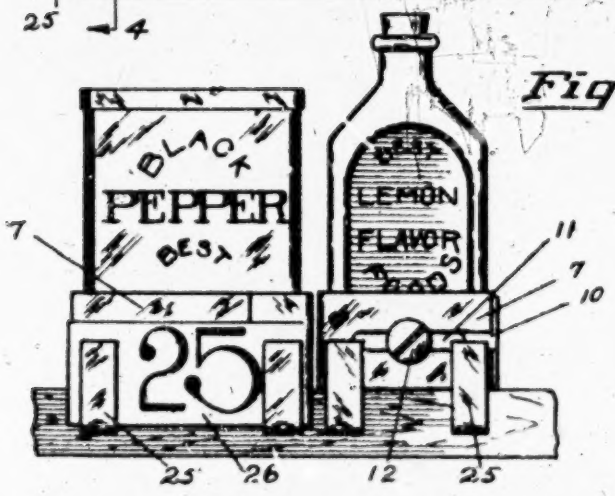


Fig. 4

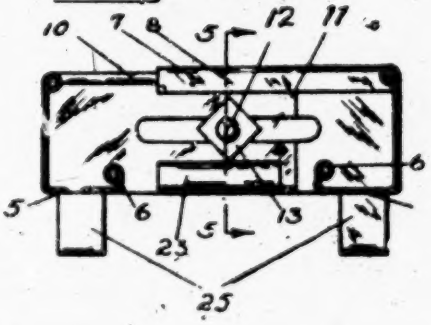
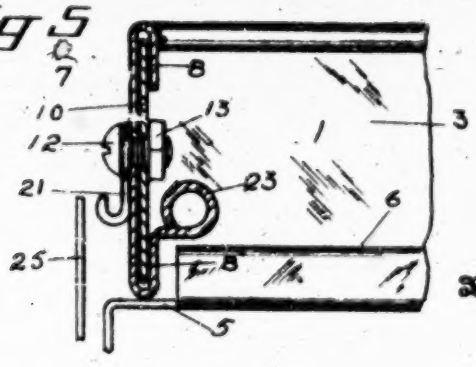


Fig 5



Inventor;
Chancey W. Butler.
By Horace Barnes.
Attorney.

Defendant's Exhibit F

Patented Mar. 5, 1929. 1,703,987

UNITED STATES PATENT OFFICE.

CHANCEY W. BUTLER, OF INDEPENDENCE, OREGON, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO WILLARD A. SLOPER AND ONE-THIRD TO CHESTER O. SLOPER, BOTH OF INDEPENDENCE, OREGON.

STORE DELIVERY APPARATUS.

Application filed October 25, 1926. Serial No. 143,944.

This invention relates to improvements in store service apparatus.

The object of my invention is the provision of a tray attachment of simple and economical construction which may be readily supported in operative position upon the shelves of retail or other stores, such as grocery stores or drug stores, in which package goods may be placed and maintained in orderly alignment and in excellent condition for display to the public, together with resilient means for advancing the goods forwardly in the tray as they are removed from the front end thereof.

Other objects and advantages of my invention, and objects relating to details of construction and arrangement of parts, will be readily apparent in the course of the detailed description to follow.

In the accompanying drawings, which illustrate by way of example a preferred form of my invention:

Figure 1 is a view in side elevation of my improved tray illustrating specimens of the goods operably mounted therein, the side walls of the tray being broken away.

Fig. 2 is a plan view of the tray substantially as illustrated in Fig. 1.

Fig. 3 is a view in front elevation of a pair of my improved trays arranged in side-by-side relation.

Fig. 4 is a view in cross section on line 4—4 of Fig. 2.

Fig. 5 is a fragmentary cross section on line 5—5 of Fig. 4.

Referring to said views, the reference numerals 1 and 2 indicate, respectively, the two lateral sections of my improved delivery tray which are of substantially similar construction, each having a vertical side wall 3 and a bottom wall 5 extending longitudinally the full length of the sections and inwardly for a relatively slight distance and terminating in an upturned rail 6 upon which the goods are slidably supported, as will be more fully described hereinafter.

The ends of each section are turned at right angles to the respective side walls 3 and are made slidably interfitting to admit the width of the tray to be adjusted.

The section 1 is formed with front and rear wall portions 7 having an inwardly offset flange 8 at its upper and lower edges to afford grooves in which the correspondingly opposed wall portions 10 of the section 2 may be received. Horizontally disposed registering slots 11 are formed in the front and rear portions 7 and 10 of the respective sections wherethrough a bolt 12, or an equivalent device, may extend and secure the sections together by means of a nut 13, so that the width of the space between the side bars 3 may be narrowed or widened to accommodate the packages contained in the tray.

A traveler 15 is disposed within the tray arranged to be moved slidably upon the rail 6 and includes a horizontal portion 16 and a perpendicular portion 17. Said traveler may be formed in two overlapping parts having slots in the vertical portions 17 thereof secured by a bolt 18, whereby the effected length of the traveler in directions transversely of the tray may be adjusted in a manner analogous to the described method of adjusting the width of the tray. Said traveler is yieldingly urged in forward directions in the tray by means of an elastic band 20 which is secured at one end to the front wall of the tray and at its other end to the perpendicular portion 17 of the traveler.

In the illustrated embodiment of the invention a hook 21 is secured about the forward bolt 12 to which the said band may be connected and at its other end may be connected to a similar hook 22 secured by the bolt 18, whereby the band may be maintained in the longitudinal axis of the tray. At the forward end of the tray the lower flange 8 of the front wall portion 7 is extended rearwardly and turned to provide a footing or fulcrum portion 23, for a purpose to be hereinafter explained.

The sections 1 and 2 may be stamped or formed from sheet metal, and in being so formed an integral tab 25 may be extended from the bottom walls 5 at each end, which tabs may be utilized to secure the trays in aligned and fixed position upon a shelf, as indicated in Fig. 1, by turning them down over the side edges of the shelf. In addition, the tabs at the forward end of the tray may be formed to provide a support for a price tag or for other indicia, as indicated at 26 in Fig. 3. Where it is desired to more rigidly secure the trays to the shelves, they may be fixedly positioned by screws, not shown, for which screw holes 27 are provided in convenient locations.

The elastic band 20 employed in my in-

vention may be of the usual endless rubber band or an elastic tape comprised of rubber and fabric, of well-known construction.

The operation of my invention may be described as follows:

After being adjusted to the proper width desired, the tray is positioned and secured upon a shelf with its forward end facing outwardly; and preferably in considerable numbers, or sufficient to supply the grocer's needs, arranged in side-by-side relation, the goods, such as cans of spices, as indicated in Fig. 1, bottles, as indicated in Fig. 3, or any other form of package goods, may then be placed in the tray by pressing back the traveler 15 and lowering the package into the tray and upon the rails 6. The entire tray can be best filled by pressing back the traveler until it is in contact or nearly so with the rear wall of the tray.

Considerable tension will thus be exerted upon the elastic band 20, and the packages will be secured in vertical alignment in the tray with the furthermost package pressed into contact with the front wall of the tray or at its bottom against the fulcrum portion 23.

When it is desired to supply the needs of a customer, the outermost package is removed from the tray, whereupon the elastic band will assert itself to move the entire line of packages forwardly in the tray and again in contact with the front wall, as before. The further back the traveler is pressed and the more weight of packages to be moved, the greater will be the tension upon the elastic band, sufficient to move the goods forwardly, such tension being released progressively as the number of packages and consequent weight to be moved becomes less.

The provision of the fulcrum portion 23 against which the lower edge of the packages engage admits of the forward can being tilted forwardly in removal without disturbing the packages to its rear. It is found that where the packages are pressed tightly against the forward wall, in some cases, in pulling the first package out, those to the rear will be disarranged. With the fulcrum portion 23, it allows the package to be tilted forwardly for a slight distance to separate it from the other packages and allow it to be withdrawn with ease.

It is found that any form of package goods can be handled with greater economy of space and saving of time than where they are mounted directly upon the shelves. The goods are always presented with a pleasing appearance, as the front lines are unbroken at all times, and as fast as a package is removed the goods replace themselves toward the front.

The use of the trays afford an economy of effort in refilling, as the packages can be inserted readily and they do not have to be lined up with care as is necessary at the present time, where goods are simply mounted on the shelves. The device is very useful for grocery stores, drug stores, and particularly in grocery stores of the self-service type, and the device may be employed in a great many different retail establishments with economy and convenience.

From the foregoing description taken in connection with the accompanying drawings the advantages of the construction and application of my improved store delivery apparatus will be readily apparent, but, while I have described the principle of operation of the invention together with the devices which I now consider the best embodiment thereof, it will be understood that the structures shown are merely illustrative, and that such changes may be made therein as will lie within the scope of the following claims.

Having described my invention, what I claim, is:

1. Store service apparatus, consisting in a laterally extensible frame adapted to support a plurality of packages in a line, a traveler in said frame movable behind said line of packages, an elastic band connected to the front end of said frame and to said traveler to urge the latter forwardly and in pressed engagement with said packages, and a fulcrum-portion positioned in the forward end of the frame upon which the foremost package bears at its lower edge.

2. In a store service apparatus, a pair of lateral sections each provided with a vertical side wall, a front and an end wall, the front and end wall of one section being slidable within the front and end wall of the other section, each of said lateral sections being provided with an inwardly extended upwardly turned rail, a carrier movable on said rails, and an elastic band connected by its opposite ends to the aforesaid front walls and the said traveler.

3. Store service apparatus, consisting in a frame, a movable traveller bearing upon a file of articles in said frame, resilient means tending to advance said traveler in said frame as the articles are removed at the forward end of the file, and a fulcrum engaging the foremost of said articles below the upper edge of the frame and maintaining said articles in spaced relation thereto.

CHANCEY W. BUTLER.

Defendant's Exhibit F

(No Model.)

H. KNUDSEN.

LUNCH COUNTER.

No. 577,688. Patented Feb. 23, 1897.

Fig 1.

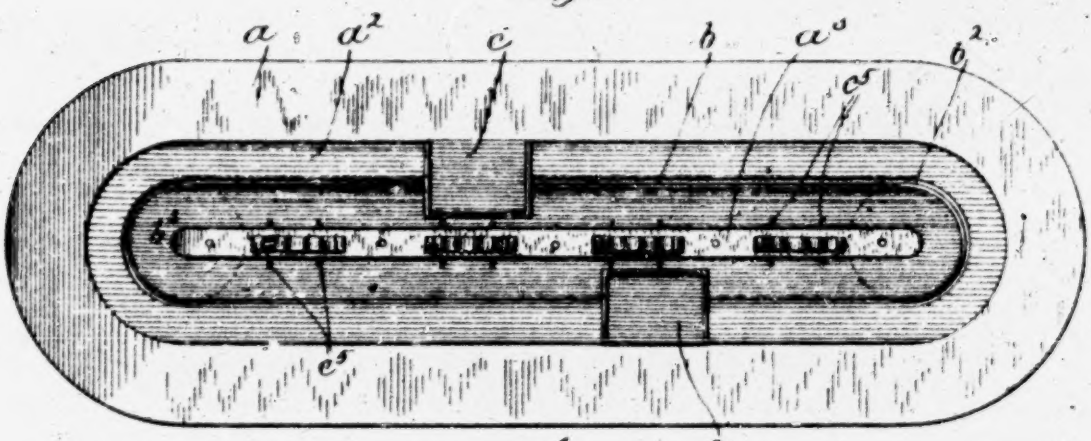


Fig 2.

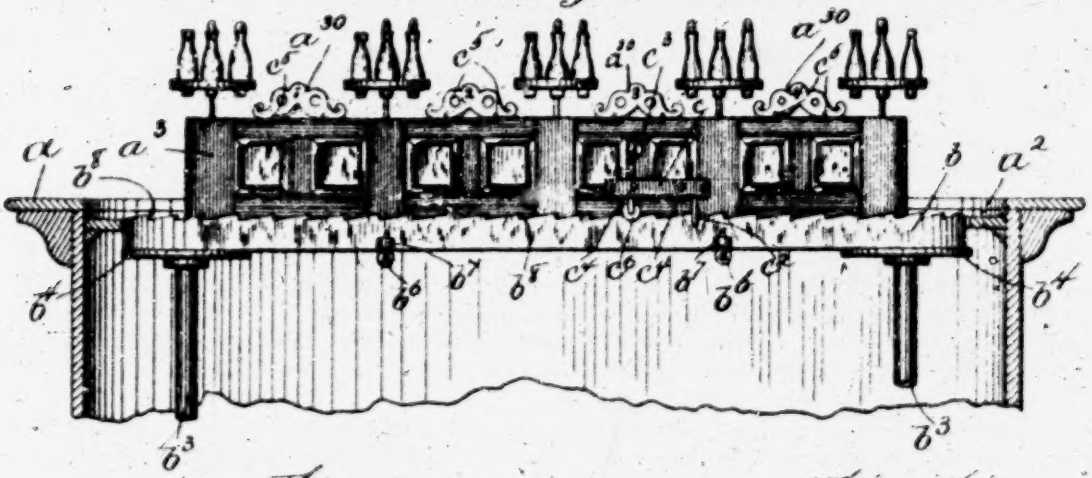


Fig 3.

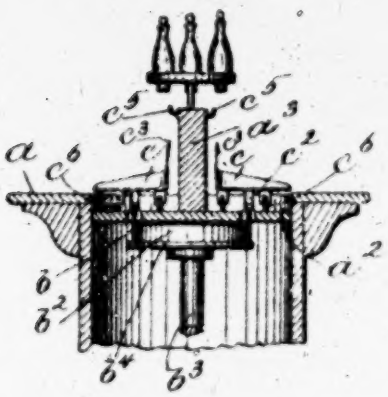
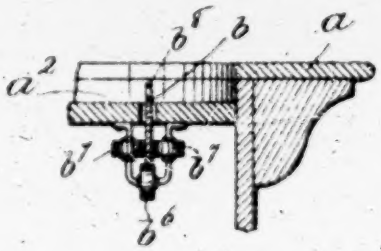


Fig 4.



Witnesses
Jas. J. Maloney
Jos. Livermore

Inventor
Hans Knudsen.
by Jos. P. Lemmore.
Atty.

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Defendant's Exhibit F

UNITED STATES PATENT OFFICE.

HANS KNUDSEN, OF BOSTON, MASSACHUSETTS.

LUNCH-COUNTER.

SPECIFICATION forming part of Letters Patent No. 577,688, dated February 23, 1897.

Application filed March 11, 1896. Serial No. 582,730. (No model.)

To all whom it may concern:

Be it known that I, HANS KNUDSEN, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Lunch-Counters, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The present invention relates to so-called "self-waiting" tables, the object being to provide a table, or especially a lunch-counter, in which the services of attendants may be dispensed with.

The invention is especially intended for use in connection with public lunch-counters, and relates to the means for forwarding articles ordered to the customer from the kitchen.

In carrying out the invention the table or counter is provided with an endless conveyer-belt which may be continuously driven by power or intermittingly by hand, and the articles of food are forwarded upon trays adapted to be placed upon the surface of the table and moved along the same by said conveyer-belt, which is so arranged that the tray, when placed in proper position, will be engaged thereby, but not permanently attached thereto, whereby said tray may be removed therefrom at any point in the travel thereof by simply lifting it from the table, the said table being preferably provided with a shelf or bracket or similar means for securing the tray in front of the customer, where it may remain without interfering with the subsequent operation of the apparatus until the customer has finished. The tray can then be returned by placing it on the table in proper position to engage the conveyer-belt, which will carry it along to that part of the table where articles are provided, and it can then be lifted off by the attendant and held until it is desired to forward it with another order.

Figure 1 is a top plan view of a lunch-counter embodying the present invention; Fig. 2, a longitudinal vertical section of the same, showing the conveyer-belt in elevation; Fig. 3, a transverse vertical section, and Fig. 4 a detail showing the preferred means for guiding and supporting the conveyer-belt.

The table *a* consists of a counter or shelf preferably having the main portion a^2 of its surface at a somewhat lower level than that of the surrounding edge portion, said main portion being preferably divided into two channels, one on each side of the counter, by means of a central vertical partition a^3. The conveyer-belt *b* is supported on vertical pulleys b^2, mounted on shafts b^3, one or both of said shafts being adapted to be rotated either continuously, as by a motor, or intermittingly, if desired, by a crank operated from the point at which the food is supplied.

One end of the lunch-counter may, for example, be extended through a partition dividing the dining-room or café from the kitchen and the conveyer-belt operated from the kitchen.

The pulleys b^2 are provided with flanges or shoulders b^4, upon which the lower edge of the belt is supported at its ends, the said belt also being preferably provided with additional supports at intervals along its length, which supports may consist, as shown in Fig. 4, of a horizontal pulley b^6, upon which the lower edge of the belt runs, and two vertical pulleys b^7, one bearing on each side of the belt to keep it centered to prevent its slipping off from the surface of the supporting-pulley b^6.

In order that the trays or waiters *c*, upon which the articles of food are to be conveyed from the kitchen to the café, may be moved along the surface a^2 by the conveyer-belt, the said conveyer-belt is provided on its upper surface with engaging shoulders b^8, extending upward through a groove in the main portion a^2 of the table, and the said trays *c* are provided with downwardly-extending jaws c^2, adapted to extend across the sides of the belt, so that the engaging shoulders b^8 will engage the crotch portion of the forked downward extensions c^2, it being only necessary, however, to lift the said tray from the table in order to detach it from the conveyer.

In order to determine the destination of a tray, a number of such trays are provided, each bearing, as indicated in Figs. 2 and 3, a number or distinguishing-mark c^3, and each space in front of a seat at the counter is designated by a corresponding distinguishing mark, (indicated at a^{30},) the same a^{30} being preferably secured to tags or signs supported upon the central partition a^3. If, for example, a customer sits at the seat designated by

the number 1 at the table, his order will be forwarded to him on the tray number 1, and when the tray bearing the said number reaches him he will observe the same and lift it from the table, retaining it, together with the articles forwarded upon it; and for convenience means are provided for retaining said tray out of the way both of the customer and of the belt, as, for example, by a suitable support therefor.

As herein shown, each tray is provided with eyeholes c^4, (see Fig. 2,) adapted to cooperate with hooks c^5 upon the central partition a^3, so that the tray when lifted from the conveyer may be hung upon said hooks, thus projecting out from the said partition toward the customer, rendering the articles upon the said tray easily accessible and readily removed therefrom to a plate upon the raised edge portion a, while the tray itself is above the line of travel of other trays and will not interfere therewith.

The trays are provided with wheels or rollers c^6, adapted to run along the depressed portion a^2 of the counter, the opposite end of the said tray being supported by the conveyer-belt in conjunction with the forked extension c^2, by which the trays are connected to the said conveyer-belt.

The conveyer-belt may, as has been stated, be operated continuously by means of a slowly-moving motor, in which event the customer will observe the tray bearing his number as it passes him, lift it from the conveyer-belt, and hang it up; or, if desired, one of the pulleys may be driven by a crank operated from the kitchen, it being practicable in this case to provide a scale of some kind whereby the person operating said pulley can determine when the tray forwarded by him has reached its destination without necessarily observing the movement thereof along the counter or table, which might be a matter of some difficulty if the table were of considerable length.

The central partition a^3 is obviously not essential to the proper working of the device, it being preferably provided, however, to add to the appearance of the table and to serve as a support for the trays, as has been described, as well as for castors containing condiments, which may be supported from the top of said partition at intervals along the counter. The articles supported in this way are readily accessible and at the same time will not interfere with the working of the apparatus or with the convenience of the customer.

It is not intended to limit the invention to the specific construction herein shown and described, since modifications might obviously be made.

I claim—

1. The combination with a table or counter, of an endless slot in the surface thereof, a conveyer-belt having a notched or serrated edge extending through said slot, pulleys for said belt mounted on vertical shafts below the table, stationary supports for the lower edge of said belt secured to the under side of the table below said slot, and traveling trays adapted to travel along the surface of the table and to be engaged by said conveyer-belt when placed over the same, substantially as described.

2. The combination with a lunch-counter, of an endless slot extending along substantially parallel to the periphery thereof, a belt supported edgewise below the table, engaging shoulders along the edge of said belt projecting upward through said slots, and trays having supporting-wheels adapted to travel on the surface of the table and provided with a forked downward extension adapted to engage said shoulders, substantially as described.

3. The combination with the table or counter provided with a slot through the surface thereof, of a conveyer-belt carried by pulleys below the table and extending edgewise through said slot and provided with shoulders along its upper edge, a central wall extending upward from the surface of the table and adapted to support castors and the like, a series of distinguishing-marks arranged at proper intervals along the said wall, traveling trays each having a distinguishing-mark corresponding to one of said marks on the wall and adapted to be engaged by said conveyer-belt when placed on the surface of the table over the same, and means for securing said trays to the said wall, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HANS KNUDSEN.

Witnesses:
H. J. LIVERMORE,
NANCY P. FORD.

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Defendant's Exhibit F

E. P. DANDRIDGE.

CONVEYING MEANS.

APPLICATION FILED DEC. 28, 1920.

1,380,886. Patented June 7, 1921.

2 SHEETS—SHEET 1.

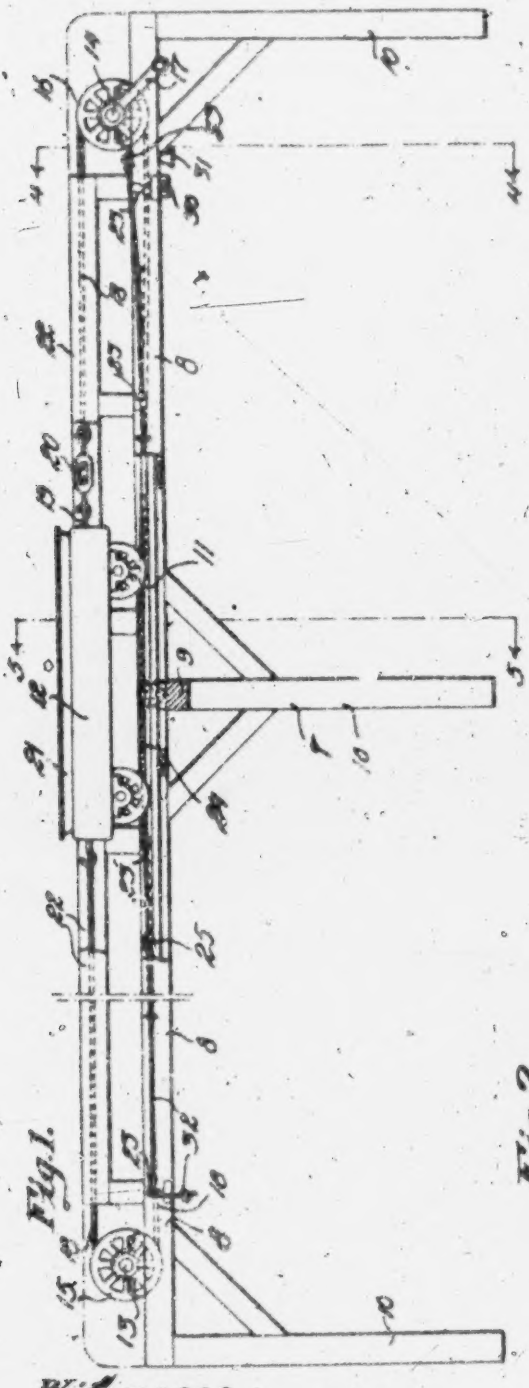


Fig. 1.

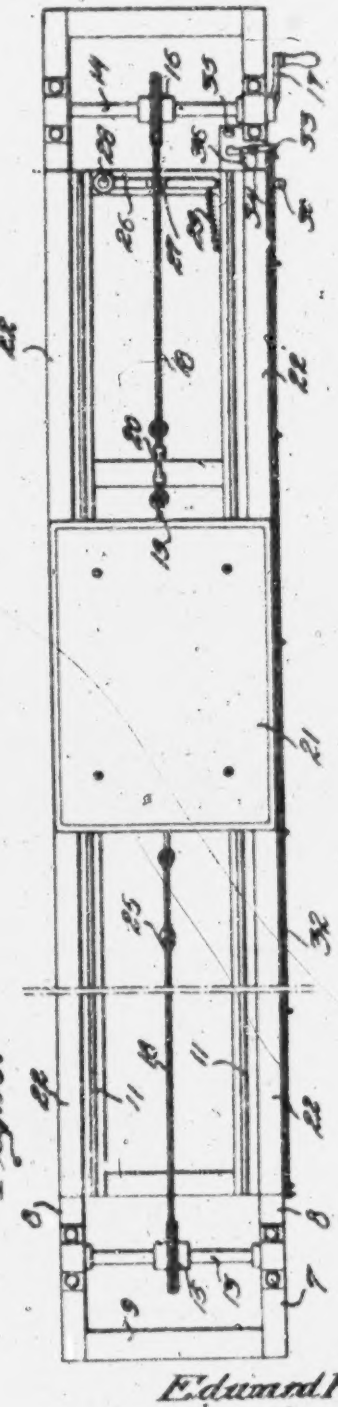


Fig. 2.

Witnesses
Geo. A. Gruss
Augustus B. Cooper

Inventor
Edward P. Dandridge
By Joshua R. H. Scott
his Attorney

Defendant's Exhibit F

E. P. DANDRIDGE.

CONVEYING MEANS.

APPLICATION FILED DEC. 28, 1920.

1,380,886. Patented June 7, 1921.

2 SHEETS—SHEET 2

Fig. 3.

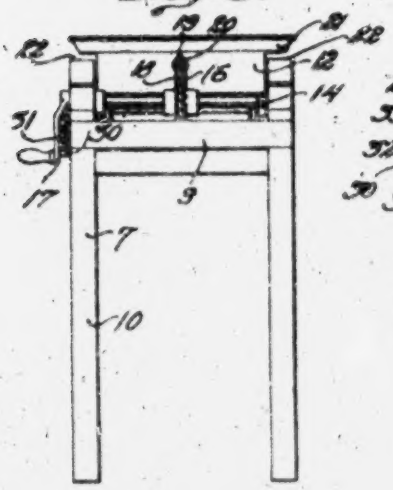


Fig. 4.

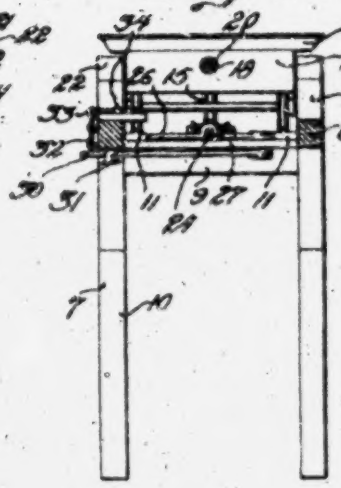


Fig. 5.

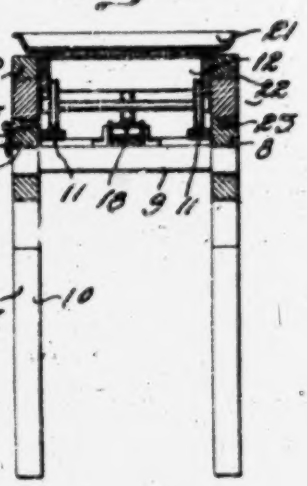
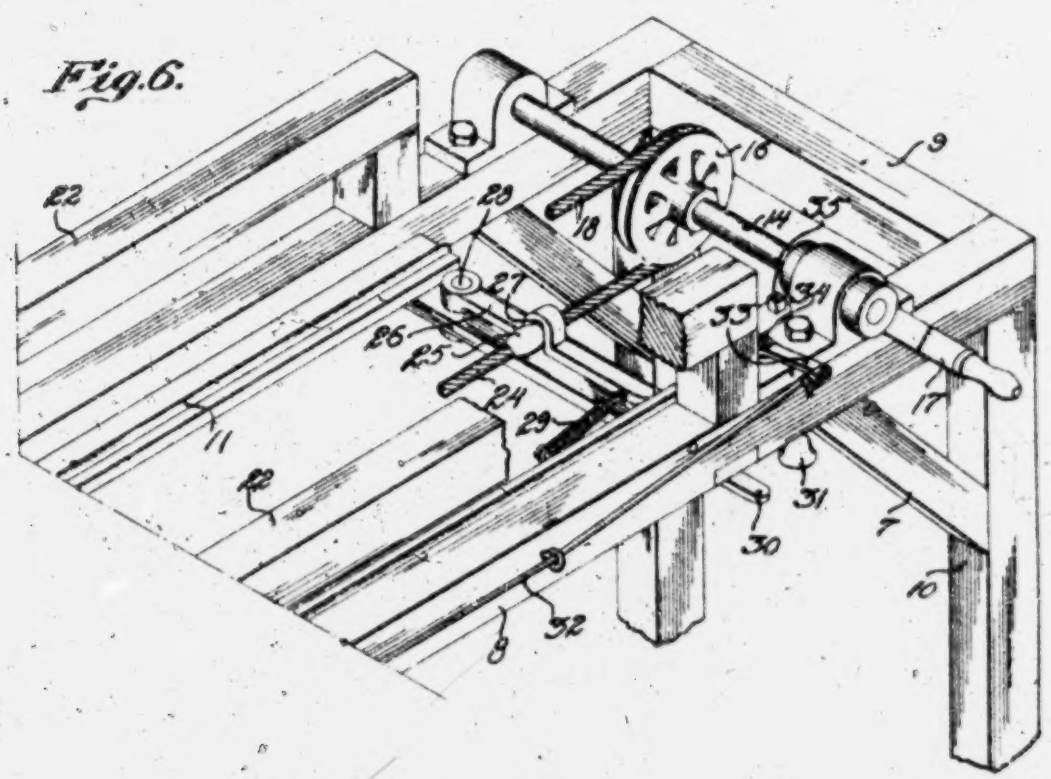


Fig. 6.



Inventor

Edward P. Dandridge

By Joshua R. H. Potts

his Attorney

Witnesses

Geo. A. Gruse

Augustus B. Coppes

Defendant's Exhibit F

UNITED STATES PATENT OFFICE.

EDWARD P. DANDRIDGE, OF PHILADELPHIA, PENNSYLVANIA.

CONVEYING MEANS.

1,380,886. Specification of Letters Patent. Patented June 7, 1921.

Application filed December 28, 1920. Serial No. 433,638.

To all whom it may concern:

Be it known that I, EDWARD P. DANDRIDGE, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Conveying Means, of which the following is a specification.

One object of my invention is to provide an improved device for use in restaurants, hotels, etc., for the purpose of conveying food from the kitchen to the dining room and for the purpose of delivering orders from the waiters in the dining room to the chef in the kitchen so as to facilitate the service.

Another object is to so construct my improved device that it will include means operative by someone in the kitchen for actuating a carriage; there also being present improved means for signaling the person in the kitchen when to start or stop the conveying means both in the outward movement therefrom from the kitchen and the inward movement thereof from the dining room to the kitchen.

Another object is to make the device of my invention of a durable and practical construction and so that it can be operated and controlled without causing confusion.

These objects, and other advantageous ends which will be described hereinafter, I attain in the following manner, reference being had to the accompanying drawings in which

Figure 1 is a side elevation of my improved device,

Fig. 2 is a top plan view of the device shown in Fig. 1,

Fig. 3 is an elevation of the right hand end of said device,

Fig. 4 is a transverse sectional elevation taken on the line 4—4 of Fig. 1,

Fig. 5 is a transverse sectional elevation taken on the line 5—5 of Fig. 1, and

Fig. 6 is an enlarged fragmentary perspective view showing certain of the parts of my invention.

Referring to the drawings, 7 represents an elongated frame structure which includes side beams 8, cross beams 9 and supporting legs 10 all secured together to form a rigid structure; the right hand end portion being adapted to be located in the kitchen while the portion to the left of said latter mentioned portion is adapted to extend lengthwise into the dining room and may be of any length suitable to the length of the dining room. The frame 7 forms a support for two rails 11 which provide a track upon which is adapted to roll a carriage 12.

Two shafts 13 and 14 are mounted in suitable bearings adjacent opposite ends of the frame 7 and these shafts respectively have grooved pulleys 15 and 16 thereon. The shaft 14 which, in the arrangement above specified will be positioned in the kitchen, has a hand crank 17 thereon which when turned will rotate the pulley 16. A cable 18 has one end hooked to the forward portion of the carriage 12 and from this end the cable passes over and under the pulley 15, then lengthwise of the frame between the beams 8, then upwardly around the pulley 16 and is hooked at 19 to the rear end of the carriage 12. The cable 18 includes an adjustable turnbuckle 20 which can be moved to take up slack in the cable as is clearly obvious from the construction shown in Figs. 1 and 2.

From the above construction it is clearly seen that if the hand crank 17 is rotated in one direction, the carriage 12 will move toward the right hand end of the frame and if the hand crank is moved in an opposite direction, the carriage 12 will move toward the left hand end of the frame. The carriage 12 supports a tray 21; said tray being secured and projecting over the top surfaces of side rails 22; said side rails having a removable pin connection 23 with the tops of the beams 8. Thus any attempt of the carriage or tray to tilt will be resisted by the top surfaces of the side rails 22. With this construction if the side rails 22 become soiled they can be readily removed from the frame 7 by lifting them so that the pins 23 thereon become detached from the frame. The bottom run 24 of the cable 18 has secured thereto an enlargement or ring 25 preferably of non-metallic material such as tough leather, fiber or the like which has a certain degree of resilience. The main frame 7 has a lever 26 pivotally mounted thereon; said lever having an eye or hole 27 through which the bottom run 24 of the cable 18 passes. This hole 27 is of less diameter than the diameter of the ring 25 so that when the ring 25 reaches the lever 26 it cannot pass through the hole 27 and will therefore swing the lever 26 on its pivot 28 against the action of a spring 29; said

Defendant's Exhibit F

spring serving to hold the lever 26 in its normal position. The pivot pin 28, in the construction as illustrated, has another part 30 of the lever secured thereon which is movable into and out of engagement with an alarm device, such for example as a bell 31 as shown in Fig. 6. Thus when the ring 25 moves the lever 26, the portion 30 of said lever will strike the alarm device 31 and effect an audible alarm, notifying the person operating the crank 17 to stop turning the shaft 14; it being noted that the ring 25 will move the lever 26 to cause said alarm when the carriage 12 reaches its full travel toward the left hand end of the frame.

As a means of signaling the operator within the kitchen, when the waiter desires to have the carriage returned, such for example as when the waiter desires an order of food, I attach a cord 32 on the side of the frame; said cord being attached to a hammer 33 which is pivoted between its ends as shown at 34. This hammer is normally held away from a projection 35 by means of a spring 36. Thus then the cord 32 is pulled from any position within the length of the frame, the hammer will be swung to strike the projection 35; thereby making a noise informing the operator to move the carriage toward the right hand end of the machine; it being noted that said hammer and projection are preferably positioned so as to be located in the kitchen.

With my improved apparatus it will be readily understood that the carriage can be moved outwardly to convey food and move inwardly either to return soiled dishes or the waiter can place a written order upon the tray 21 so that it will be conveyed into the kitchen after which the chef can make up the order and return the same on the carriage to the waiter. This prevents the necessity of the waiter walking backwardly and forwardly from the dining room to the kitchen and facilitates the dispensation of the food. If a waiter desires the carriage 12 to stop at a particular place within the length of the frame, he can signal the operator through the medium of the cord 32, for example, two pulls of the cord 32 will cause the hammer 33 to strike the projection 35 twice; thus producing a signal, and the signal for returning the carriage can be produced, for example, by a single pull of the cord 32.

While I have described my invention as taking a particular form, it will be understood that the various parts of my invention may be changed without departing from the spirit thereof, and hence I do not limit myself to the precise construction set forth, but consider that I am at liberty to make such changes and alterations as fairly come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A device of the character described including an elongated supporting structure having side rails spaced apart; a track below the tops of said rails; a carriage on said track and having a portion movable between said side rails; and a tray secured to said carriage and having projecting portions directly above the tops of the side rails; substantially as described.

2. A device of the character described including a supporting structure having a track thereon; a carriage movable on said track; pulleys respectively located adjacent opposite ends of the track; a cable passing around said pulleys and having its opposite ends in one run thereof secured to the carriage; means for turning said pulleys whereby the carriage can be moved backward and forward along the track; and a signaling member having a hole therein through which a run of said cable can pass, said cable having an enlarged portion thereon not capable of passing through said hole whereby the signaling device will be operated to inform a person of the position of the carriage with respect to the supporting structure; substantially as described.

3. A device of the character described including a supporting structure having a track thereon; a carriage movable on said track; pulleys respectively located adjacent opposite ends of the track; a cable passing around said pulleys and having its opposite ends of one run between the pulleys secured to the carriage; means for turning said pulleys whereby the carriage can be moved backward and forward along the track; and side rails located at opposite sides of said carriage and being detachably connected to said supporting structure; substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD P. DANDRIDGE.

Witnesses:
CHAS. E. POTTS,
ELIZABETH GARBE.

Defendant's Exhibit F

(No Model.) 2 Sheets—Sheet 1.

O. F. GROVES.

TABLE.

No. 379,780. Patented Mar. 20, 1888.

Fig. 1.

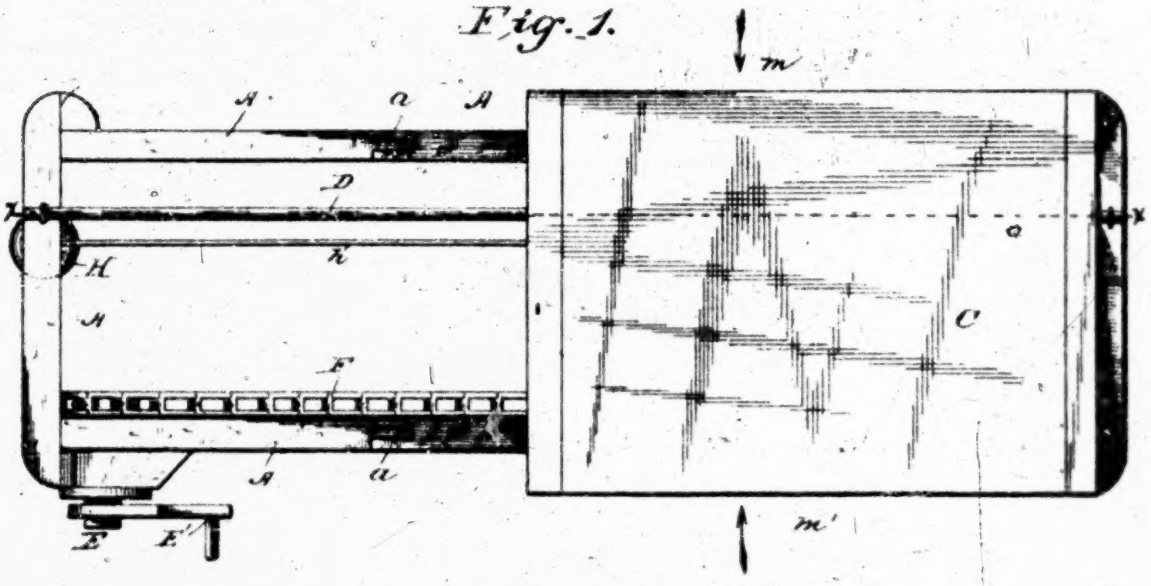
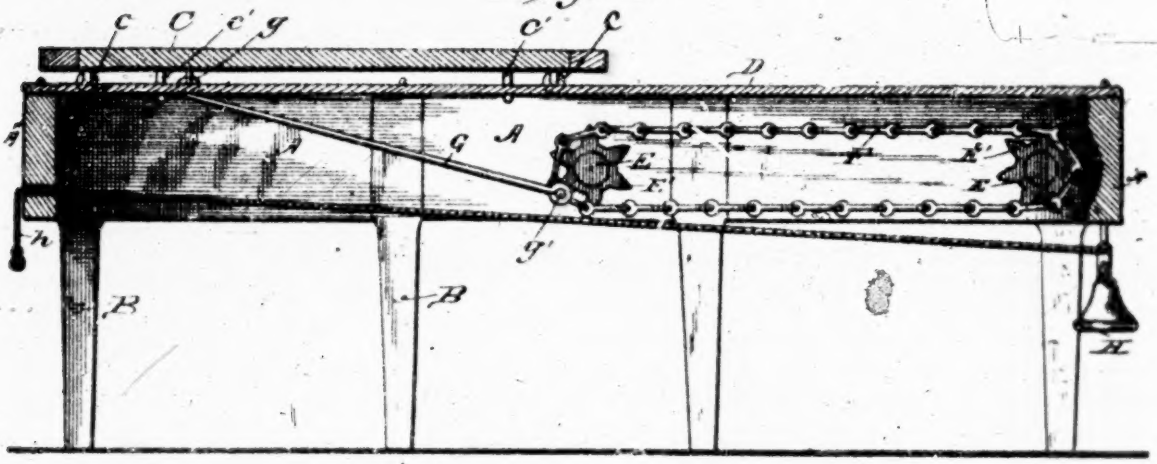


Fig. 2.



Witnesses.
H. A. Rohrer
Duane E. Fox.

Inventor.
Oliver F. Groves.
By his Attorneys.
Wilcox Greene.

(No Model.) *Defendant's Exhibit F* 2 Sheets—Sheet 2

O. F. GROVES.

TABLE.

No. 379,780. Patented Mar. 20, 1888.

Fig. 3.

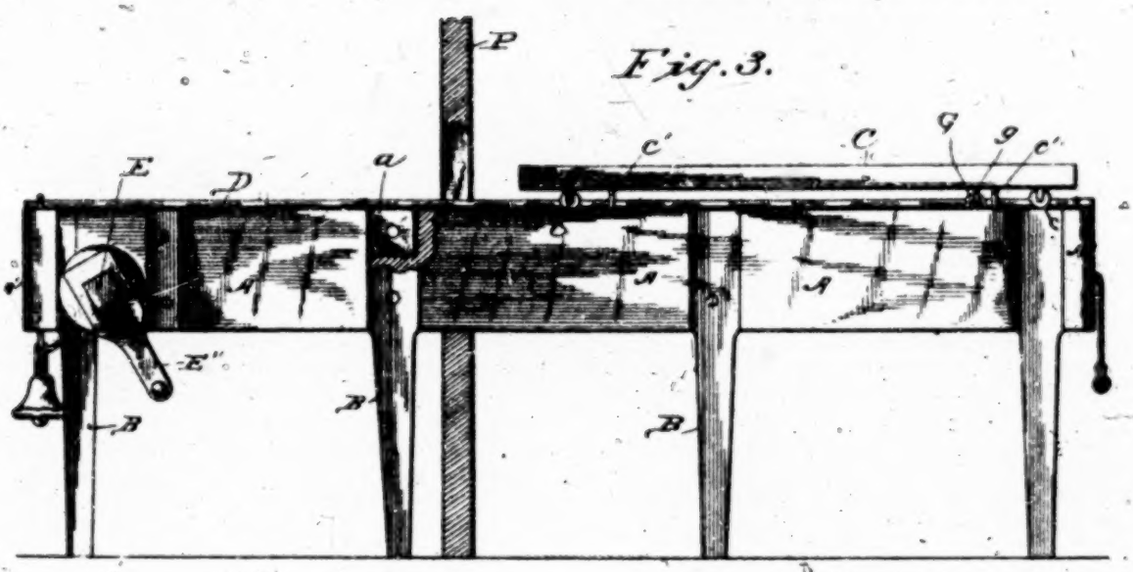


Fig. 6.

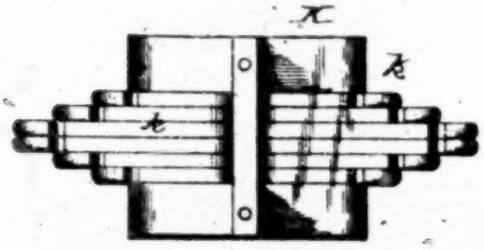


Fig. 5.

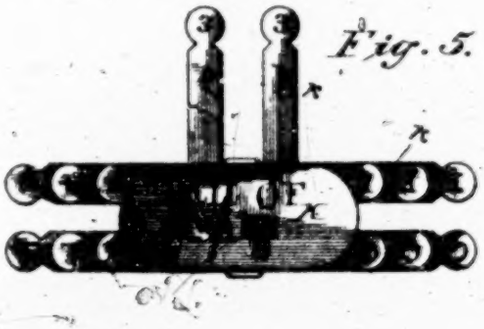
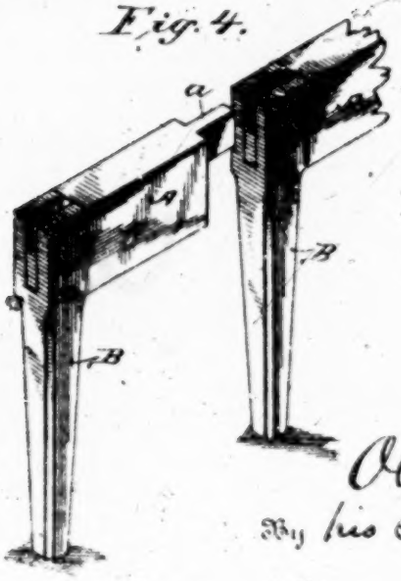


Fig. 4.



Witnesses.
H. S. Robins.
Duane E. Fox.

Inventor.
Oliver F. Groves.
By his Attorneys
Miles & Greene

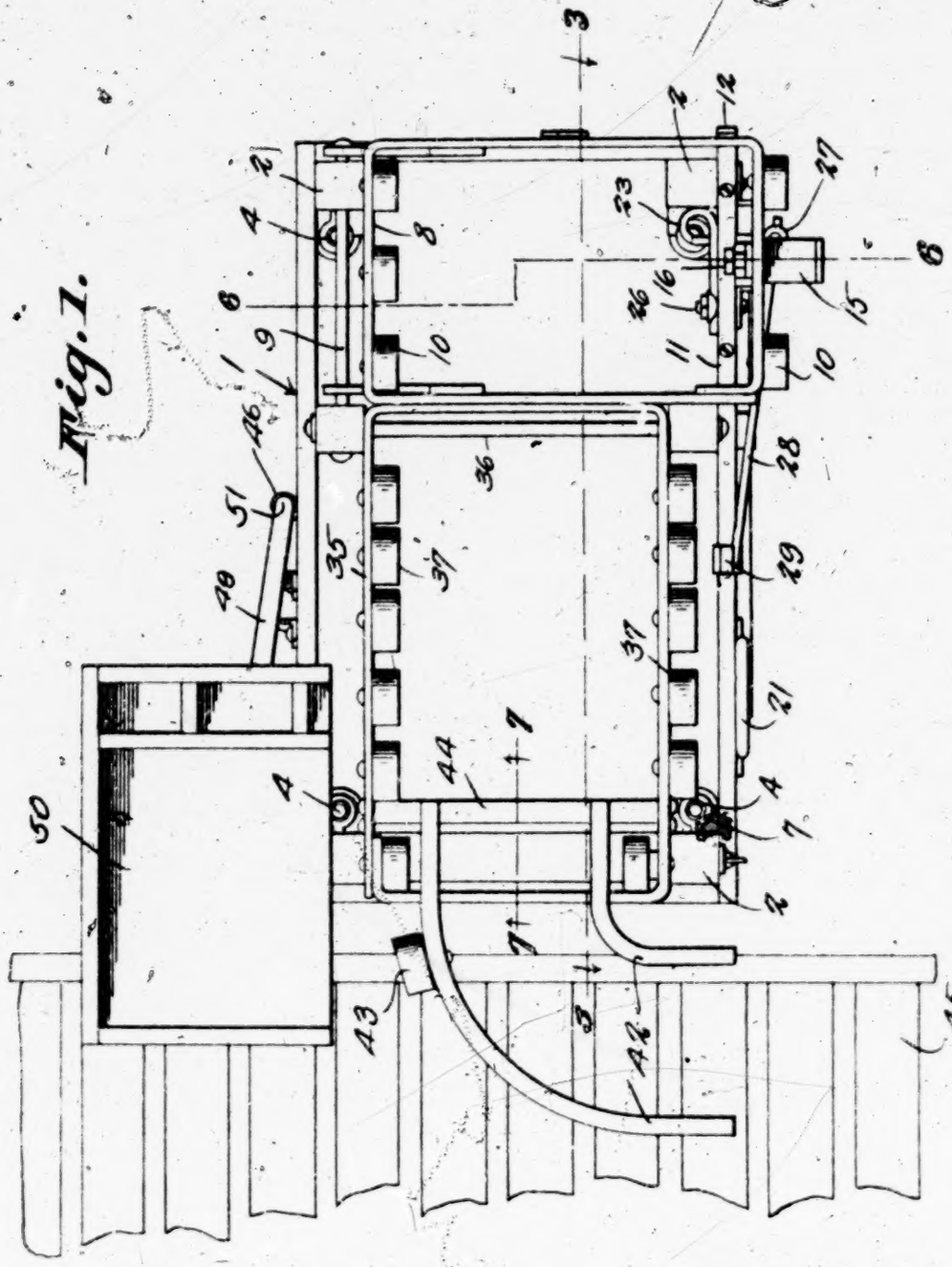
Defendant's Exhibit F

Dec. 9, 1930 E. R. WALKER 1,784,403

FRUIT PACKING STAND

Filed June 11, 1928 4 Sheets-Sheet 1

Fig. 1.



E. R. Walker
Inventor
By C. A. Snow & Co.
Attorneys

480

Defendant's Exhibit F

UNITED STATES PATENT OFFICE.

OLIVER F. GROVES, OF ALDA, NEBRASKA.

TABLE.

SPECIFICATION forming part of Letters Patent No. 379,780, dated March 20, 1888.

Application filed October 25, 1887. Serial No. 253,355. (No model.)

To all whom it may concern:

Be it known that I, OLIVER F. GROVES, a resident of Alda, in the county of Hall and State of Nebraska, have invented certain new and useful Improvements in Tables; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in self-waiting dining-tables, and is fully described and explained in this specification, and shown in the accompanying drawings, in which—

Figure 1 is a plan of my improved table. Fig. 2 is a vertical section of the table through the line *x x*, Fig. 1, the view being in the direction indicated by the arrow *m* in Fig. 1. Fig. 3 is a side elevation of the table, looking in the direction indicated by the arrow *m'*, Fig. 1. Fig. 4 is a perspective view of two of the separable sections making up the frame of the table, and Figs. 5 and 6 are views illustrating an adjustable indicator to be used in connection with the table for the purpose of indicating articles to be served.

In the views, A A A are sections which, when connected, make up the sides of the frame of a table having any given length proportionate to the number of such sections employed. Each of the sections is provided with a leg, B, and the various sections may be readily connected by means of tongues *a* on the corresponding ends of the different sections, the tongues being adapted to enter suitable gains in the opposite ends of the sections, respectively, as illustrated in the drawings. The sections A A, forming one of the ends of the table, are connected by a cross-piece, A', and the corresponding sections at the opposite end of the frame are connected by a similar cross-piece, A", the sections so connected by cross-pieces being always used in the table, and the length of the entire table being increased by the insertion between said end sections of any number of auxiliary sections having the form illustrated in Fig. 4. On the table-frame thus formed moves reciprocally from end to end a table-top, C, having substantially the length of one-half of the table-frame, and supported by the rollers *c*, which rest upon the frame. A rod, D, extending from end to end of the table-frame, passes through eyes or staples *c'*, attached to the lower face of the table-top, and serves as a guide for the top in its movement from end to end of the frame. Two transverse horizontal shafts, E, are journaled in the table-frame and provided with sprocket-wheels E', around which passes a sprocket-chain, F, of ordinary construction, and one of these shafts E is provided with a crank, E", by means of which it may be rotated and the sprocket-chain moved continuously.

A pitman, G, is pivoted at one end on a staple, *g*, in the lower face of the table-top C, and at the other end on a projecting stud, *g'*, attached to the sprocket-chain; and it is evident that the rotation of the shaft E and the consequent continuous movement of the sprocket-chain F carries the stud *g'* through the entire circuit traversed by the chain, and thus moves the pitman G and the table-top C backward and forward through a space equal to the distance between the outermost points of the two sprocket-wheels, whereby the table-top is carried backward and forward from end to end of the frame on which it rests. The motion imparted to the table-top by this movement of the chain is the best possible for a device of this kind, since it is uniform through the greater portion of each trip of the table-top, but decreases gradually at the end thereof.

In practice the table is placed, preferably, partly in one room and partly in another, the two rooms being separated by a partition, as P, and articles of food being placed on the table-top in one room and carried thence for consumption into the other room. One of these rooms will ordinarily be the kitchen, or the room in which the food is prepared, and the other the dining-room; and I prefer to place that end of the table which is provided with the crank in the kitchen, and also to attach to the table at the same end a bell, H, which may be rung by means of a cord, *h*, extending from end to end of the table and having a suitable pull in the dining-room. As shown in the drawings, the table-top is at the end of the table opposite that which is provided with the crank and bell—that is to say, in the dining-room. If, now, it be desired to remove from the table-top articles of food already upon it, or to have it supplied, the bell in the kitchen is rung by pulling the cord *h*, and the table-top is moved to the kitchen by rotating the

Defendant's Exhibit F

crank E" and shaft E. When the desired changes have been made, the table top may evidently be returned to the opposite end of the table by again rotating the crank either in the same direction as before, or in the opposite direction.

It is evident that in order to make this device convenient and available it is necessary to provide some means for indicating the articles with which the table is to be supplied when moved from the dining-room to the kitchen, and for this purpose I have constructed the device illustrated in Figs. 5 and 6, and which I denominate a "bill of fare." This device consists of a frame, K, of any desired shape and size, in which are pivoted a large number of independent strips, *k*, each of which is marked on one side with the name of some article of food and on the other side with a figure indicating the required number of dishes or portions of the given article. It is preferable to indicate on a number of the strips the same article of diet, marking the several strips, however, on their opposite faces with different figures, as 1, 2, 3, &c., and it is convenient to make the strips of different lengths proportionate to the numbers indicated by the figures marked on them, respectively. Thus, for instance, in Fig. 5 it will be seen that three strips are marked on one side with the word "eggs," the three strips being all of different lengths. In pursuance of the system above indicated these strips are marked on opposite sides with figures, the shortest with the figure 1, the second with the figure 2, and the third with the figure 3, and this same system may be pursued in the lettering and numbering of a series of strips of any number, great or small.

The use of the bill of fare, which is evident from the foregoing description, is as follows: Before ringing the bell for the removal of the table top from the dining-room to the kitchen the waiter in charge of the table takes the orders of the guests seated thereat and raises from their normal positions a number of strips sufficient to indicate all the orders so taken. Thus, if one order be given for eggs, the strip marked on one side with the word "eggs" and on the opposite side with the figure "1" is raised, and if three orders be given for coffee the strip marked on one side with the word "coffee" and on the other with the figure "3" is raised in the same way. When the strips have been so adjusted as to indicate all the orders taken, the bill of fare is placed upon the table, the bell is rung, and the table-top removed to the kitchen for the purpose of filling the order.

Having now described and explained my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a table-frame provided with a guide-rod, D, of a top, C, provided with rollers resting on said frame, and eyes or staples encircling said guide-rod, and means, substantially as shown and described, for imparting reciprocating motion to said table top, substantially as and for the purpose set forth.

2. The combination, with a table frame and a table top having a reciprocating motion thereon, of transverse shafts journaled in the frame, wheels mounted on said shafts respectively, a chain or belt encircling said wheels, and a pitman connecting a point on said chain with a point on said table top, substantially as and for the purpose set forth.

3. The combination, with the sectional frame A A A A′ A″, of the table top C, provided with rollers *c*, resting on said frame, the guide-rod D, staples *c*′, attached to the table top and encircling said guide rod, the shafts E E, journaled in the frame and provided with sprocket-wheels E′, the sprocket-chain F, surrounding said sprocket-wheels, and the pitman G, pivoted at one end to the table-top and at the opposite end on a stud, *g*, on the sprocket-chain, substantially as and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OLIVER F. GROVES.

Witnesses:
J. W. BARTHOLOMEW,
J. W. CROOKS.

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Defendant's Exhibit F

Jan. 29, 1929. 1,700,443

A. S. MORSA

CAN RAISING AND DISCHARGING MECHANISM FOR CAN BOILING DEVICES

Filed June 14, 1927 2 Sheets-Sheet 1

Fig. 1.

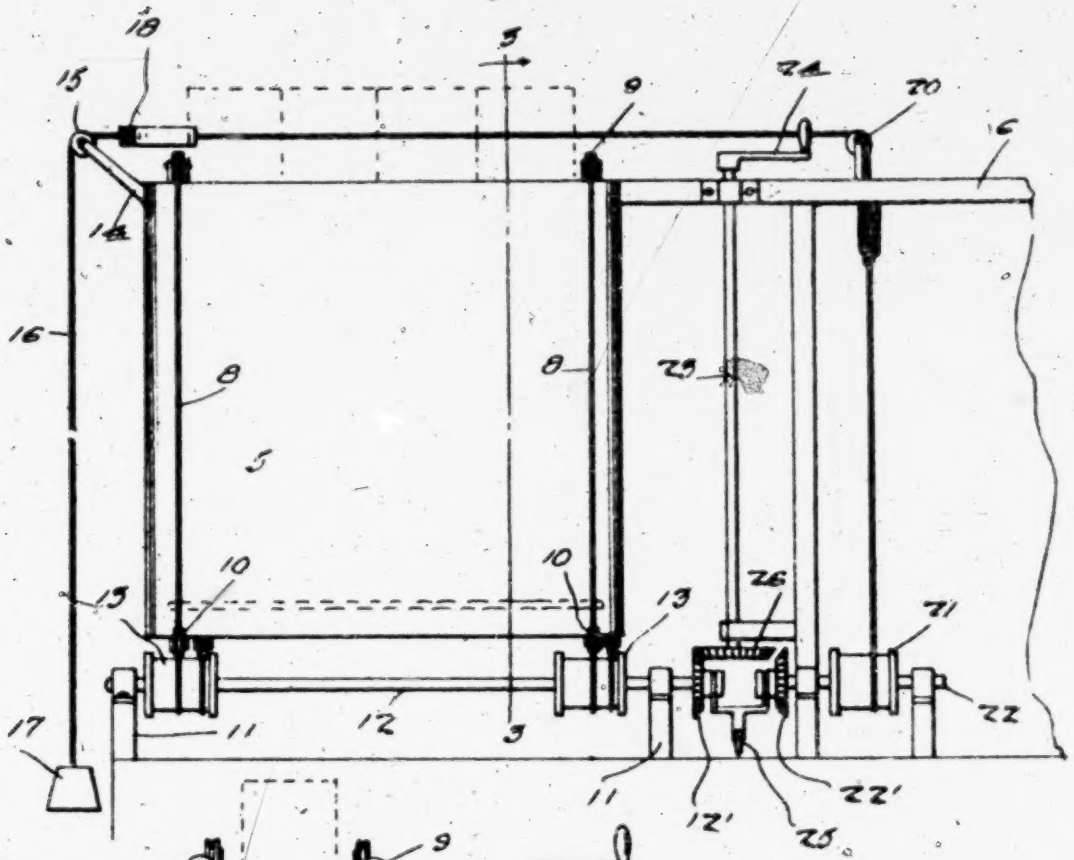
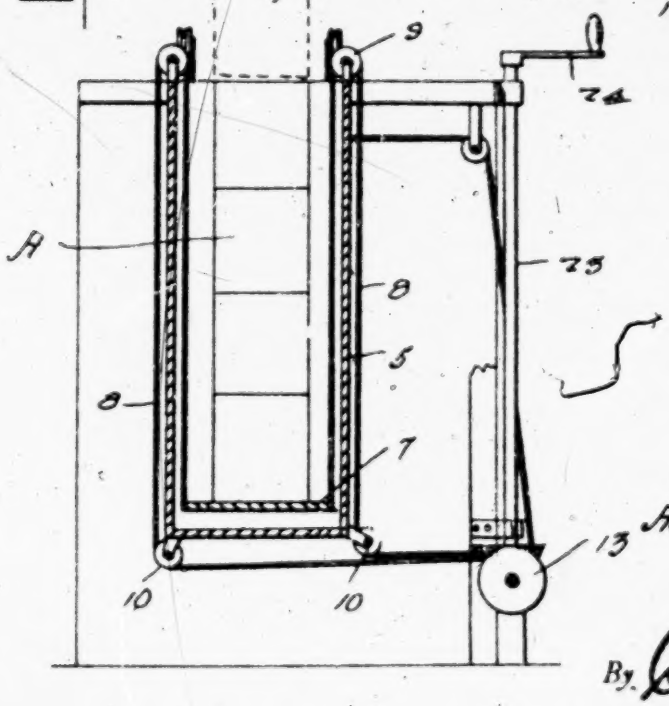


Fig. 3.



Inventor
Angelo Salvatore Morsa,

By *Clarence A. O'Brien*
Attorney

Defendant's Exhibit F

Jan. 29, 1929. **1,700,443**

A. S. MORSA

CAN RAISING AND DISCHARGING MECHANISM FOR CAN BOILING DEVICES

Filed June 14, ~~1927~~ 2 Sheets-Sheet 2

Fig. 3.

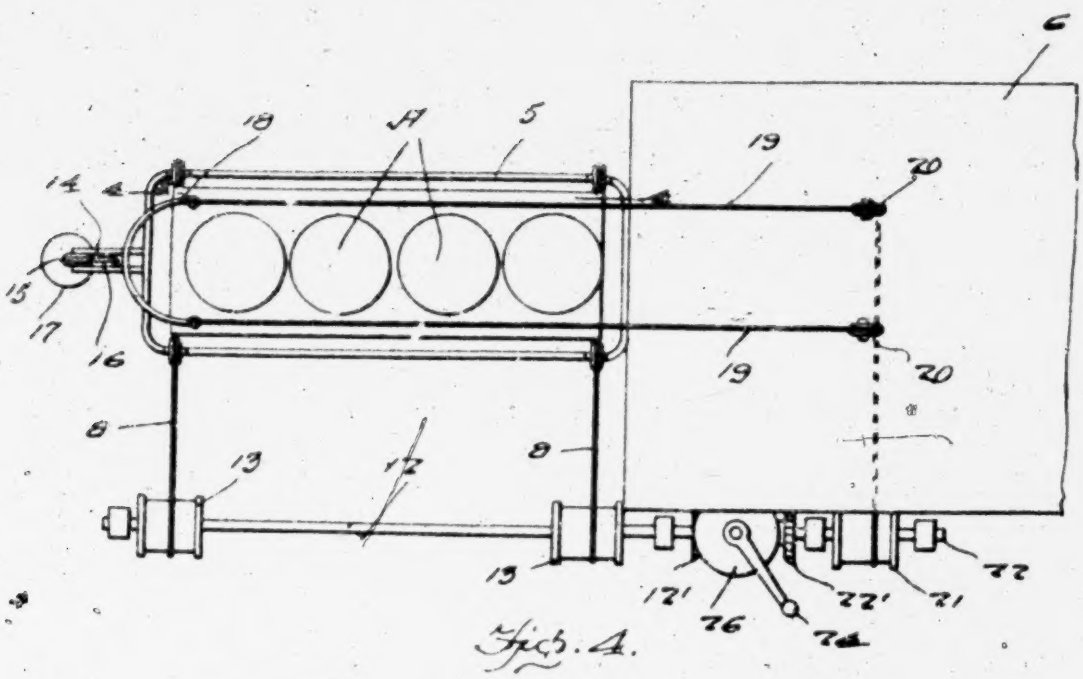
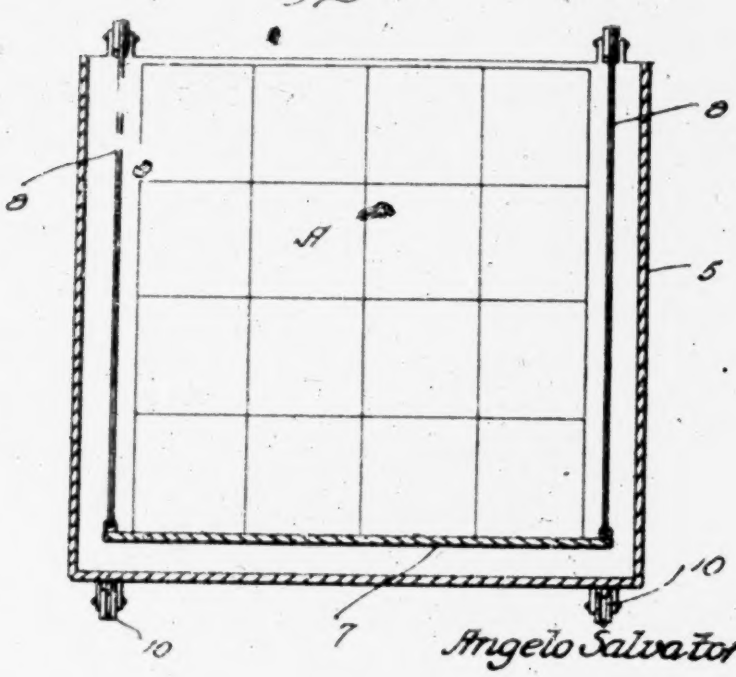


Fig. 4.



Inventor
Angelo Salvatore Morsa,

By Clarence A. O'Brien
Attorney

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Defendant's Exhibit F

Patented Jan. 29, 1929. 1,700,443

UNITED STATES PATENT OFFICE.

ANGELO SALVATORE MORSA, OF CAMDEN, NEW JERSEY.

CAN RAISING AND DISCHARGING MECHANISM FOR CAN-BOILING DEVICES.

Application filed June 14, 1927. Serial No. 198,861.

This invention relates generally to devices for use in the boiling of food stuffs after having been canned, and has more particular reference to means for raising the cans within the boiler and thence discharging the same therefrom onto a table or support adjacent the top of the boiler, and this without requiring the direct touching of the can.

In carrying out my invention, there is provided generally a platform for arrangement within a boiler and upon which the cans are to be disposed, while within the boiler, means are provided for raising the platform to the top of the boiler, other means being provided for moving the upper row of cans from the boiler onto a table or supporting shelf directly adjacent the top of the boiler.

The most pertinent object of the present invention is a mechanism of this character, that is of relatively simple construction, and of such a nature to permit the device to be operated without requiring unusually skilled labor, and without necessitating more than one operator for the proper manipulation of the device.

Now having particular reference to the drawings, and in the drawings:—

Figure 1 is a side elevation of a can boiling device equipped with my improved raising and discharging mechanism.

Fig. 2 is a top plan view thereof.

Fig. 3 is a detail vertical section taken substantially upon the line 3—3 of Fig. 1, and

Fig. 4 is a detail horizontal section taken substantially on the line 4—4 of Fig. 2.

Now having particular reference to the drawings, 5 indicates the boiler of any conventional canning mechanism at the top open side of which is a can receiving horizontal table 6. In carrying out my invention, there is provided a platform 7 for disposition within the boiler 5 and upon which the cans A are to be arranged.

Secured to the four corners of this platform 7 are certain ends of cables 8, those at opposite sides of the boiler extending upwardly and being trained over pulleys 9 upon the upper edge of the boiler. The cables then extend downwardly and are trained over pulleys 10 upon the bottom of the boiler as clearly indicated in Figs. 1, 3 and 4.

Suitably journaled within bearings 11 at the front side of the boiler 5 and beneath the bottom thereof is a shaft 12, equipped at opposite ends of the boiler with cable drums 13—13 to which the outer ends of all four cables 8 are attached, so that when the drums are rotated in one direction, the cables will be wound thereon for moving the platform 7 upwardly, for obviously raising the cans within the boiler.

At the top of the boiler 5 and at the end remote from the table 6 is an upwardly and outwardly extending pulley supporting arm 14 equipped with a pulley 15, over which is arranged a cable 16 that extends downwardly alongside of the boiler 5, that is equipped with a weight 17. The inner end of this cable is attached to a relatively C shaped arm 18 while attached to the ends thereof are spaced parallel cables 19—19 extended to a point over the table 6 at which point they are trained over pulleys 20—20 arranged upon the table, from whence they extend downwardly and are attached to a common cable drum 21, fixed to a horizontal shaft 22 in alinement with the shaft 12 previously described.

The adjacent ends of the shaft 12 and 22 are equipped with sliding bevel gears 12′ and 22′ respectively, while suitably journaled between these shafts is a vertical shaft 23, the upper end of which extends beyond the table 6 and that is equipped at said upper end with a crank handle 24. The sliding gears 12′ and 22′ are associated with a common shifting yoke 25, while the lower end of the shaft 23 is equipped with a beveled gear 26 for mesh with either the gear 12′ or the gear 22′, dependent upon the position of the shifting yoke 25.

Obviously, when the platform 7 is at its lowermost position within the boiler 5, and the yoke 25 shifted to cause the engagement of the gear 12′, with the vertical shaft gear 26, a turning of the handle 24 will cause the winding of the cables 8 upon the drums 13 for raising the platform to the desired extent.

As soon as one row of cans has been raised above the top of the boiler 5, the yoke 25 is shifted to the opposite position to cause the engagement of the gear 22′ with the gear 26, whereupon a turning of the handle 24 will cause the winding of the cables 19—19 upon the drums 21, whereupon the arm 18 will engage the adjacent-most can and causing the said row of cans to move horizontally from the boiler on to the table 5, from whence they may be removed.

Defendant's Exhibit F

As soon as the yoke is shifted to again engage the gear 12' with the gear 26, the weight 17 will automatically return the arm 18 to its initial position, so that the next row of cans may be moved onto the table 6.

The operation and advantages of a device of this character will be readily appreciated by those skilled in the art, and even though I have herein shown and described the invention as consisting of certain detail structural elements, it is nevertheless to be understood that some changes may be made therein without affecting the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new is:—

1. In combination with the container of an article cooking mechanism, a platform arranged horizontally within the container and upon which the articles are to be disposed, cables connected at their inner ends to the corners of the platform, drums mounted externally of the containers, and upon which the outer ends of the cables are attached, and means operable adjacent the container for causing the operation of said drums.

2. In combination with the container of an article cooking mechanism, a platform arranged horizontally within the container and upon which the articles are to be disposed, cables connected at their inner ends to the corners of the platform, drums mounted externally of the container and upon which the outer ends of the cables are attached, means operable adjacent the container for causing the operation of said drums, means disposed horizontally above the container for engaging the uppermost row of articles as the same are elevated above the container, and said means being operable by the same mechanism provided for operating said drums.

In testimony whereof affix my signature.

ANGELO SALVATORE MORSA.

Defendant's Exhibit F

Dec. 9, 1930 E. R. WALKER 1,784,403

FRUIT PACKING STAND

Filed June 11, 1928 4 Sheets-Sheet 2

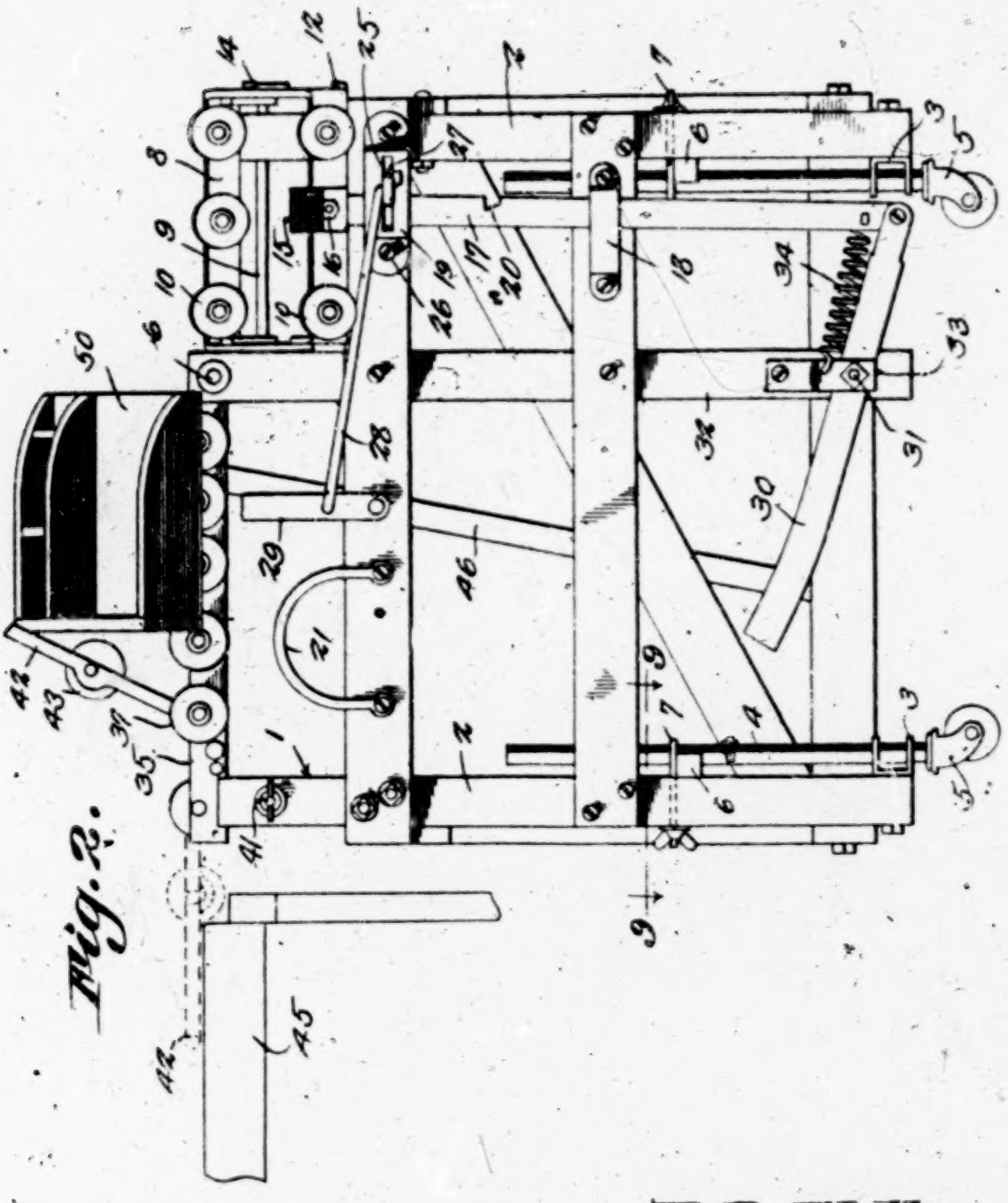

Fig. 2.

E. R. Walker
Inventor
By C. A. Snow & Co.
Attorneys

Defendant's Exhibit F

Dec. 9, 1930 E. R. WALKER 1,784,403

FRUIT PACKING STAND

Filed June 11, 1928 4 Sheets-Sheet 2

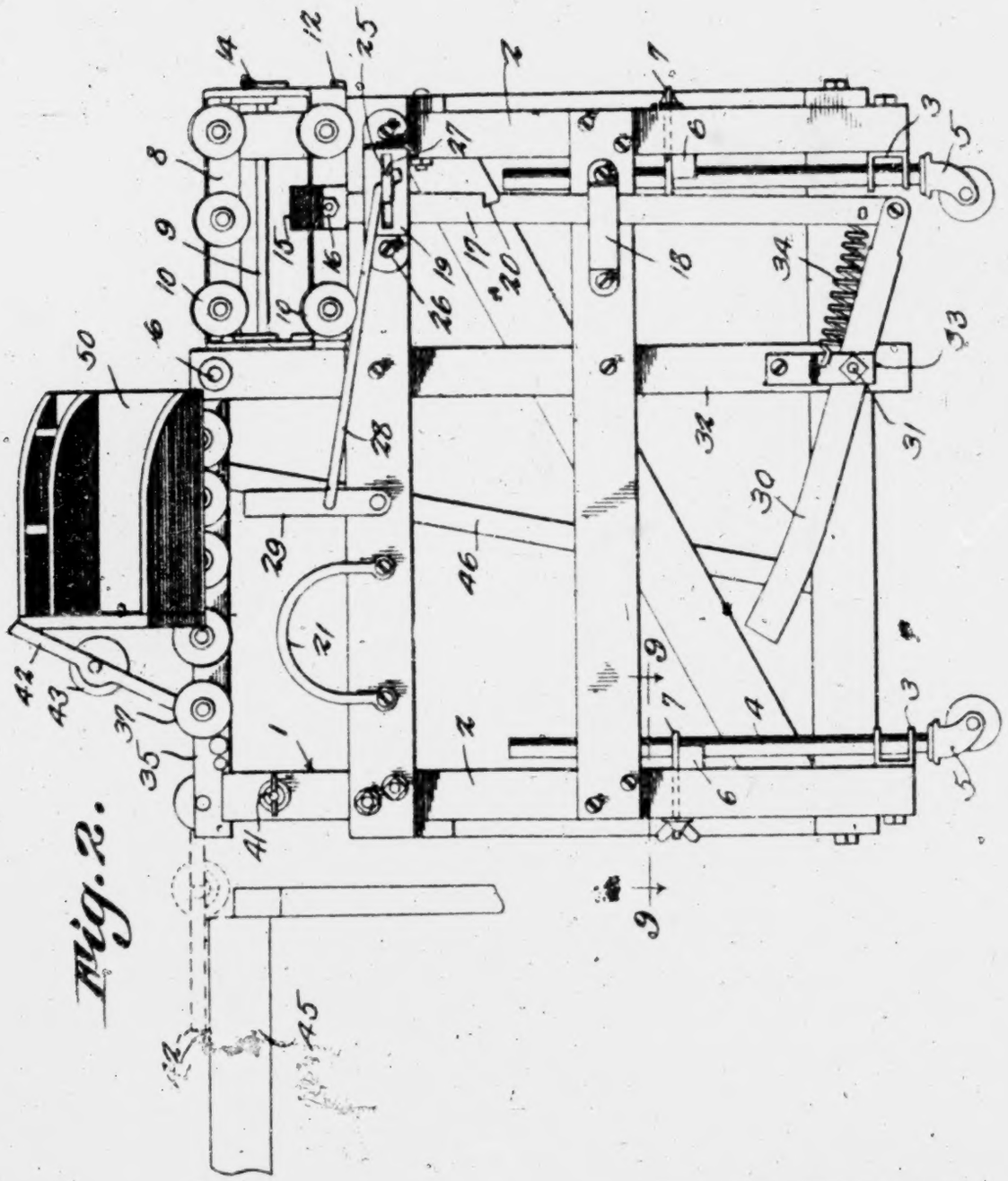

Fig. 2.

E. R. Walker
Inventor
By C. A. Snow & Co.
Attorneys.

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Defendant's Exhibit F

Dec. 9, 1930 E. R. WALKER 1,784,403

FRUIT PACKING STAND

Filed June 11, 1928 4 Sheets-Sheet 3

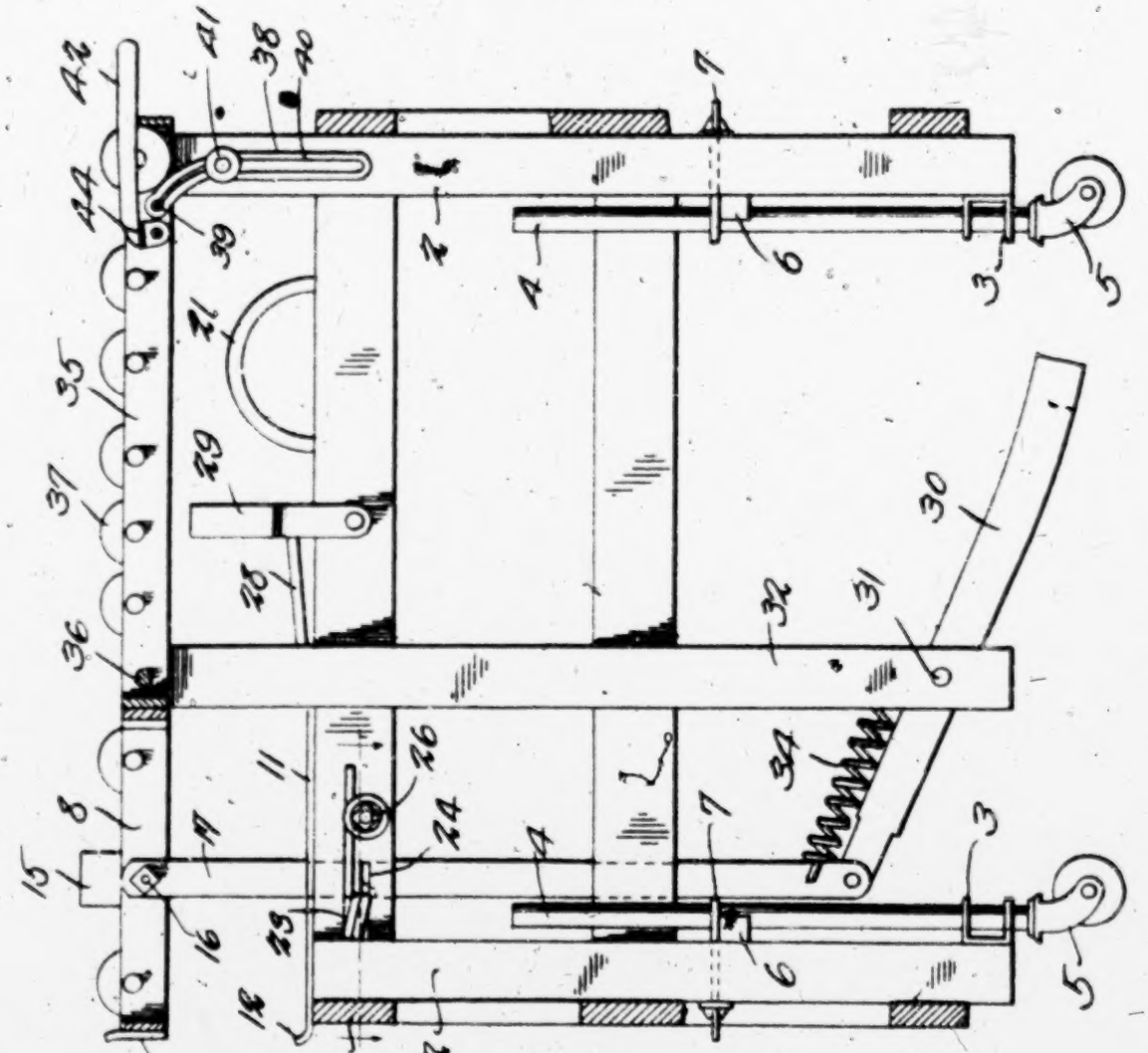

Fig. 3.

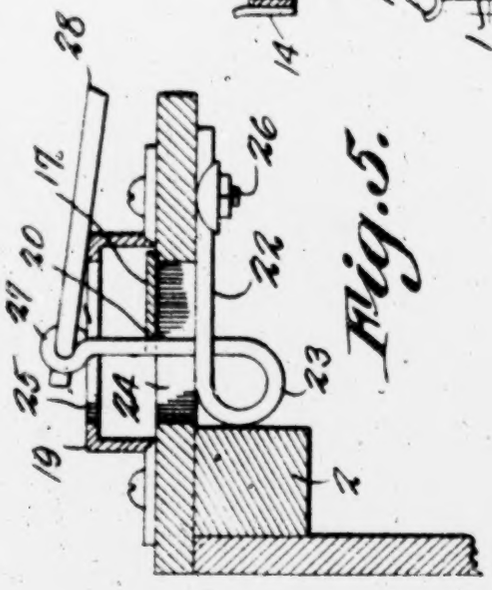

Fig. 5.

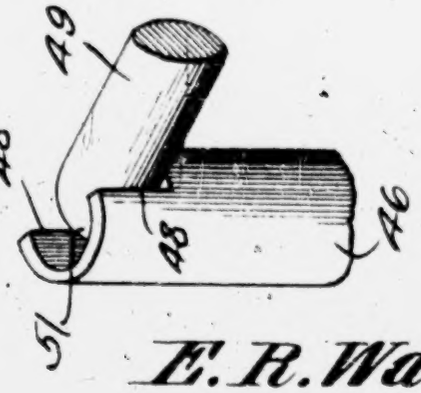

Fig. 4.

E. R. Walker
Inventor

By Cushman & Co.
Attorneys

541

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Dec. 9, 1930 E. R. WALKER 1,784,403

FRUIT PACKING STAND

Filed June 11, 1928 4 Sheets-Sheet 4

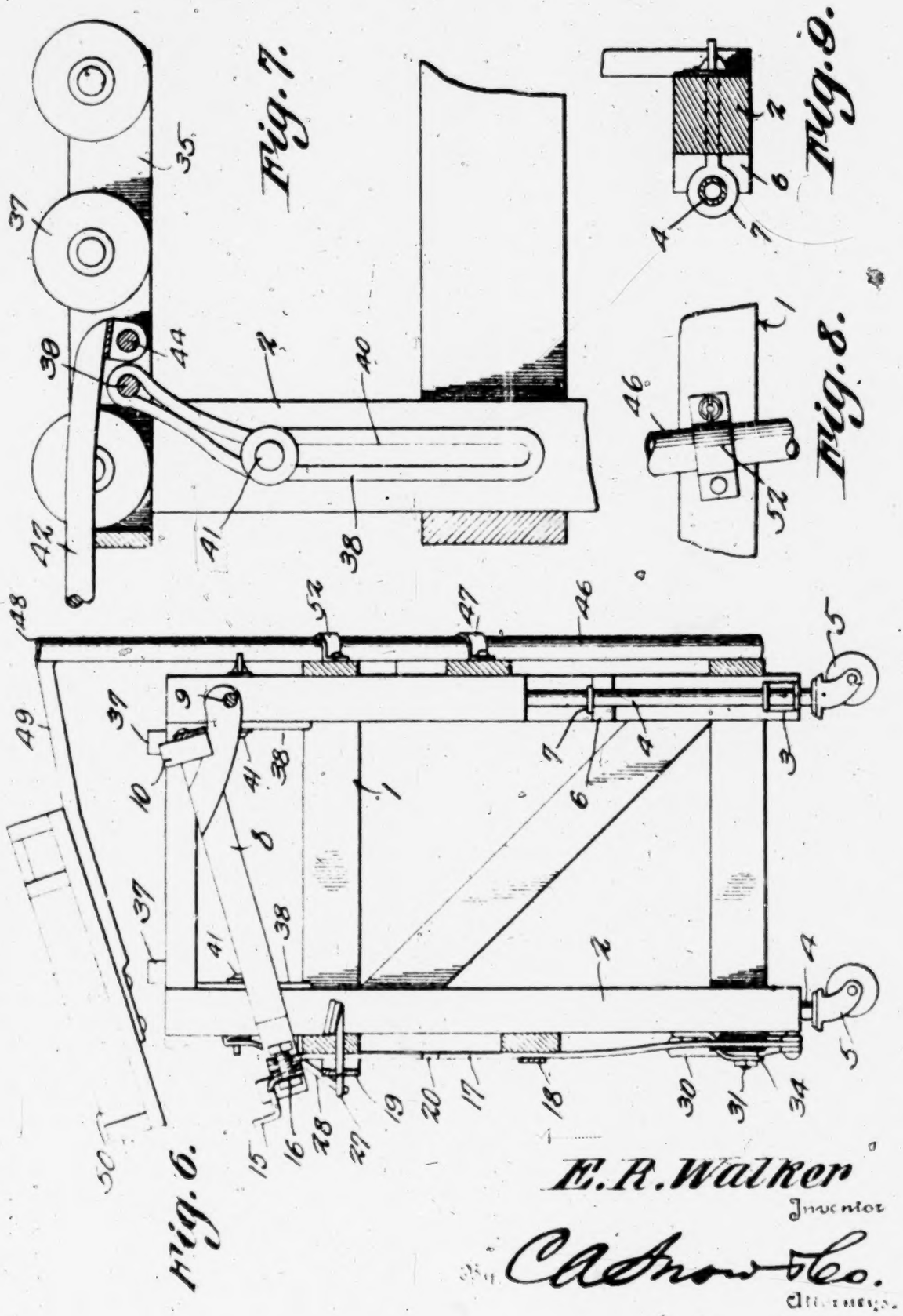

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

E. R. Walker
Inventor

By C. A. Snow & Co.
Attorneys.

Defendant's Exhibit F

Patented Dec. 9, 1930 1,784,403

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UNITED STATES PATENT OFFICE

EDWIN R. WALKER, OF YAKIMA, WASHINGTON

FRUIT-PACKING STAND

Application filed June 11, 1928. Serial No. 284,444.

This invention aims to provide novel means whereby a woman packer, or other person having no great amount of strength, can handle a crate of fruit without exertion, and place it on a conveyor in a packing house, it being unnecessary to provide an attendant to shift the boxes upon the conveyor, after they have been packed.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in top plan, a device constructed in accordance with the invention;

Figure 2 is a side elevation;

Figure 3 is a vertical longitudinal section on the line 3—3 of Figure 1;

Figure 4 is a perspective view showing a part of the mounting for the tray;

Figure 5 is a section showing the latch and attendant parts;

Figure 6 is a section on the line 6—6 of Figure 1;

Figure 7 is a section on the line 7—7 of Figure 1;

Figure 8 is an elevation showing one of the clamps;

Figure 9 is a section on the line 9—9 of Figure 2.

In carrying out the invention, there is provided a main frame 1 provided with a handle 21 by which the operator can move the frame about. The frame may be of any desired height and length. The frame includes corner posts 2 provided near to their lower ends with guide brackets 3 in which legs 4 are vertically adjustable, the legs being provided at their lower ends with ball bearing castors. If the operator desires, the legs 4 and the castors 5 may be omitted, but when they are provided, they afford a means whereby the frame 1 can be adjusted as to height and whereby the frame can be rolled about. The legs 4 fit in grooved abutment blocks 6 on the posts 2, and the legs are held in the abutment blocks by clamping bolts 7 engaged around the legs and slidable in the posts 2. It is obvious that by slacking off the clamping bolts 7, the frame 1 can be adjusted up and down on the legs 4 to vary the effective height of the frame. A packing table 8 is provided and is hinged at one end to the frame 1, as shown at 9, so that the end of the packing table which is nearest to the operator can be adjusted up and down. During the operation of packing, the fruit in a box (not shown) is on the table 8, the table 8 ordinarily slants downwardly and forwardly, as shown in Figures 2 and 6, and rests on a wear strip 11 secured to the frame.

The wear strip 11 has a finger 12 at one end which engages the side of the packing table and holds it securely in the position shown in Figure 2. Rollers 10 on the front end of the packing table 8 and on the back end of the table are adapted to carry the box which is to be filled, and the table 8 has a stop 14 on its outer side which prevents the box from sliding off, to the right in Figure 2, whilst the box is being packed. An angular stop 15 on the forward end of the table 8 keeps the box from sliding down out of place when the table 8 is inclined toward the operator as shown in Figure 6. The box stop 15 is held on the forward end of the packing table 8 by a securing element 16.

The securing element 16 forms a pivotal mounting for the upper end of a downwardly extended raising and lowering plunger 17 which reciprocates in a lower guide 18 and an upper guide 19 on the frame 1. In one edge of the plunger 17 there is a seat 20. The seat 20, when the plunger 17 is raised, is adapted to cooperate with one arm of a latch 22 which is shown in Figure 5. The latch 22 is provided intermediate its ends with a spring 23 which tends to press one arm of the latch into the seat 20 of the

plunger 17 when the plunger is raised far enough.

The latch 22 is held in the frame 1 by one of the securing elements 26 that carries the upper guide 19. The upper guide 19 has a slot 25, and there is a slot 24 in the frame 1. It is in the aforesaid slots that the outwardly extended arm of the latch 22 works horizontally. At the outer end of the latch 22 there is an eye 27 in which is pivoted a link 28, the link 28 being pivoted to a lever 29 fulcrumed on the frame 1 within easy reach of an operator. An operating member, in the form of a pedal 30 is provided, the pedal being fulcrumed intermediate its ends, at 31 on a bracket 33 carried by an intermediate post 32 which forms part of the main frame 1. A retractile spring 34 is connected at its ends to the plunger 17 and to the bracket 33. The spring 34 is stretched when the plunger 17 moves downwardly. The action of the spring 34, therefore, is to ease down the packing table 8 when the packing table swings on its hinged mounting 9 into the inclined position shown in Figure 6, and the spring 34, moreover, having been stretched as aforesaid, aids in the raising of the table 8 and the packed box of fruit into a horizontal position as and for a purpose to be described hereinafter. The numeral 35 marks a skid located at one side of the packing table 8, as shown in Figure 1.

The skid 35 has rollers 37 arranged parallel to the rollers 10 on the packing table 8. That end of the skid 35 which is nearest to the packing table 8 is hingedly mounted, as shown at 36, on the frame 1, so that the end of the skid 35 which is remote from the hinged mounting 36 can be swung up and down. Figure 7 shows that props 38 are pivotally mounted at 39 on the outer end of the skid 35, the props 38 having slots 40 receiving clamp bolts 41 mounted in the frame 1.

The numeral 42 marks an extension, the outer end of which is disposed at right angles to the length of the skid 35 and parallel to the packing house conveyor 45, the outer end of the extension being disposed above the conveyor. The extension has any desired number of rollers 43, and the inner end of the extension is hinged at 44 to the skid 35, so that the extension can be turned over on top of the skid, as indicated in Figure 2 in solid line, upon occasion. On that side of the frame 1 which is remote from the place where the operator stands there is a bearing 47 and a clamp 52 (Figure 8). In the bearing and in the clamp is mounted an inclined tubular support 46 which is cut away at its upper end to define shoulders 48.

The numeral 49 denotes an arm carrying tray 50 in which is mounted the paper and other articles that a packer may need. The arm 49 has a finger 51 that extends downwardly into the upper end of the support 46.

In practical operation, the packing table 8 rests at an incline, as shown in Figure 6, the box (not shown) being on the table. The arm 49 is turned around against one of the shoulders 48 on the support 46 until the tray 50 is within easy reach of an operator standing at the lower end of the table 8. The extension 42 generally is turned back into the solid line position of Figure 2, so that boxes of fruit carried along by the conveyor 45 from other packing stands, will not knock against the extension. The left hand end of the skid 35 is adjusted vertically until it is at the proper height with respect to the conveyor 45, as shown in Figure 2, and, then, the clamp bolts 41 are tightened up to hold the skid 35 in the position to which it has been adjusted. The operator now wraps the fruit and packs the fruit into the box (not shown) on the inclined table 8. After the box has been packed, the tray 50 is swung around out of the way, as shown in Figure 1.

The operator steps on the pedal 30 and raises the plunger 17 until the latch 22 engages in the seat 20 of the plunger. By this operation, the left hand end of the table 8 (Figure 6) is raised until the table is horizontal or nearly so. The packed box then is pushed from the rollers 10 of the table upon the rollers 37 of the skid 35 and from thence upon the extension 42 which has been lowered so that it overhangs the conveyor 45, as shown in Figure 2 in solid line. The construction of the device is such that a person having but little strength can trundle the box of fruit along until it is on the conveyor 45.

The operator swings back the tray 50 into the position shown in Figures 2 and 6. The extension 42 is turned up into the position shown in Figure 2. The lever 29 and the link 28 are operated to disengage the latch 22 from the seat 20 in the plunger 17 and the plunger 17 moves downwardly into the place shown in Figure 2, the table 8 coming to rest at an incline, as depicted in Figure 6. As has been stated hereinbefore, the spring 34 cushions the downward movement of the plunger 17 and aids in the raising of the plunger and the table 8 with the packed box of fruit.

What is claimed is:—

1. In a device of the class described, a frame, a packing table, a skid located at one side of the packing table, means for mounting the skid and the packing table on the frame for vertical swinging movement in directions at right angles to each other, and mechanism for holding the skid and the packing table in adjusted positions.

2. In a device of the class described, a frame, a packing table, a skid located at one side of the packing table, means for mounting the skid and the packing table on the frame for swinging movement in directions at an angle to each other, an extension the outer end of which is disposed approximately at right

angles to the length of the skid and means for mounting the extension on the skid for swinging movement to overhang the skid when the extension is not in use.

3. In a device of the class described, a frame, a packing table, a skid, means for mounting the packing table and the skid on the frame for swinging movement in directions approximately at right angles to each other, a tray, and means for mounting the tray on the frame for horizontal swinging movement to a position overhanging the skid, and to a position behind and clear of the skid so that a box may be shoved over the skid.

4. In a device of the class described, a frame, a skid, means for mounting the skid for raising and lowering, a packing table, means for mounting the packing table at one end of the skid for raising and lowering; mechanism for raising and lowering the packing table, said mechanism comprising a lever fulcrumed on the frame, and a plunger pivoted to the lever and to the packing table; a latch wherewith the plunger automatically engages as the plunger is raised, and means under the control of an operator for disengaging the latch from the plunger.

5. In a device of the class described, a frame, a packing table and a skid cooperating therewith, means for mounting the skid and the packing table on the frame for vertical adjustment; legs, mechanism for mounting the frame on the legs for vertical adjustment, thereby to vary the height of the packing table with respect to an operator.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature

EDWIN R. WALKER.

Defendant's Exhibit F

April 3, 1934. C. F. WOLTERS 1,953,900

FILING CABINET

Filed Jan. 12, 1932 4 Sheets-Sheet 1

Fig. 1.

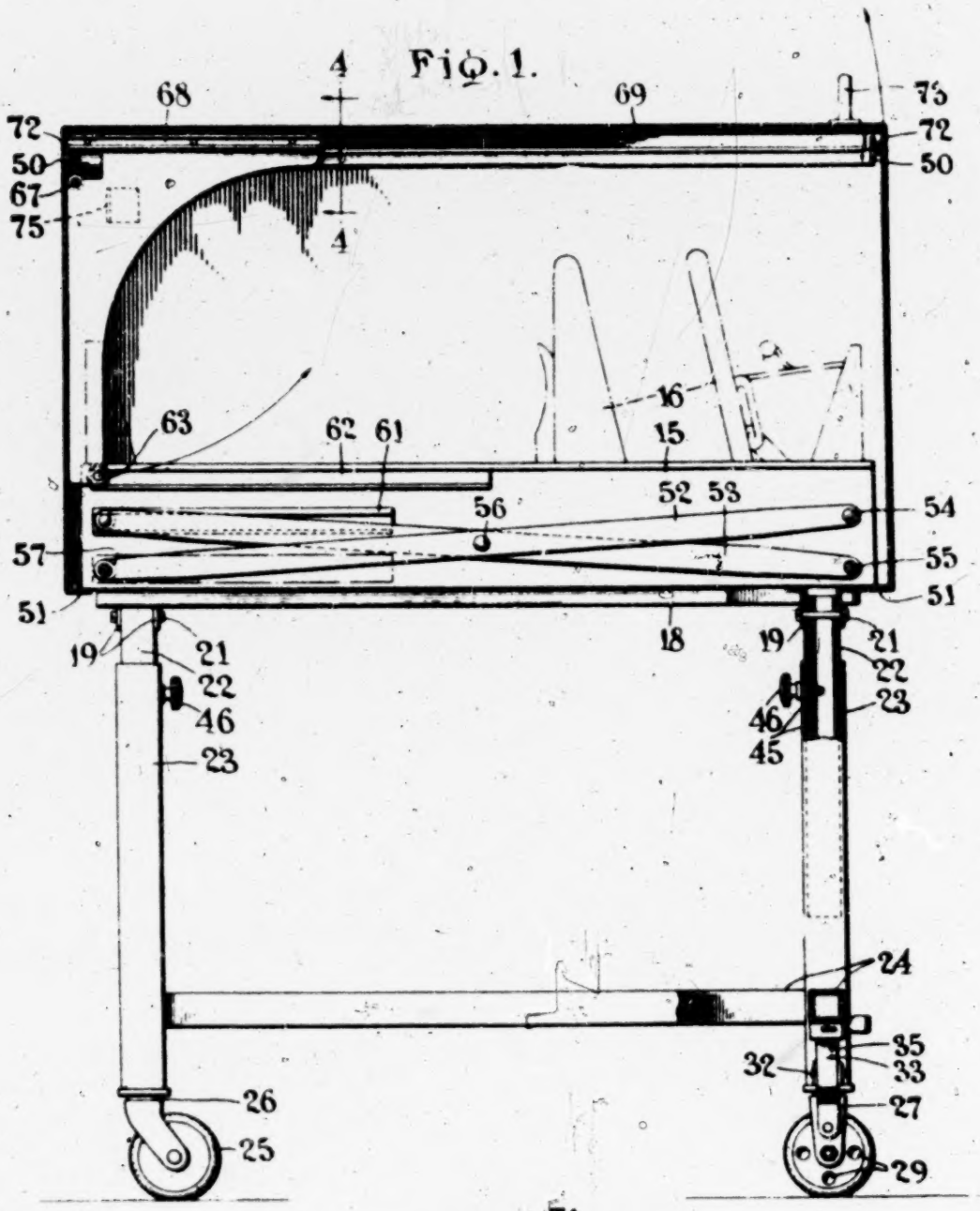

Fig. 4.

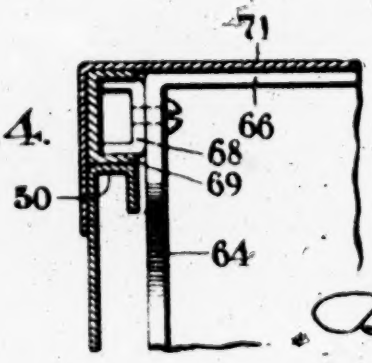

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FIG. 2.

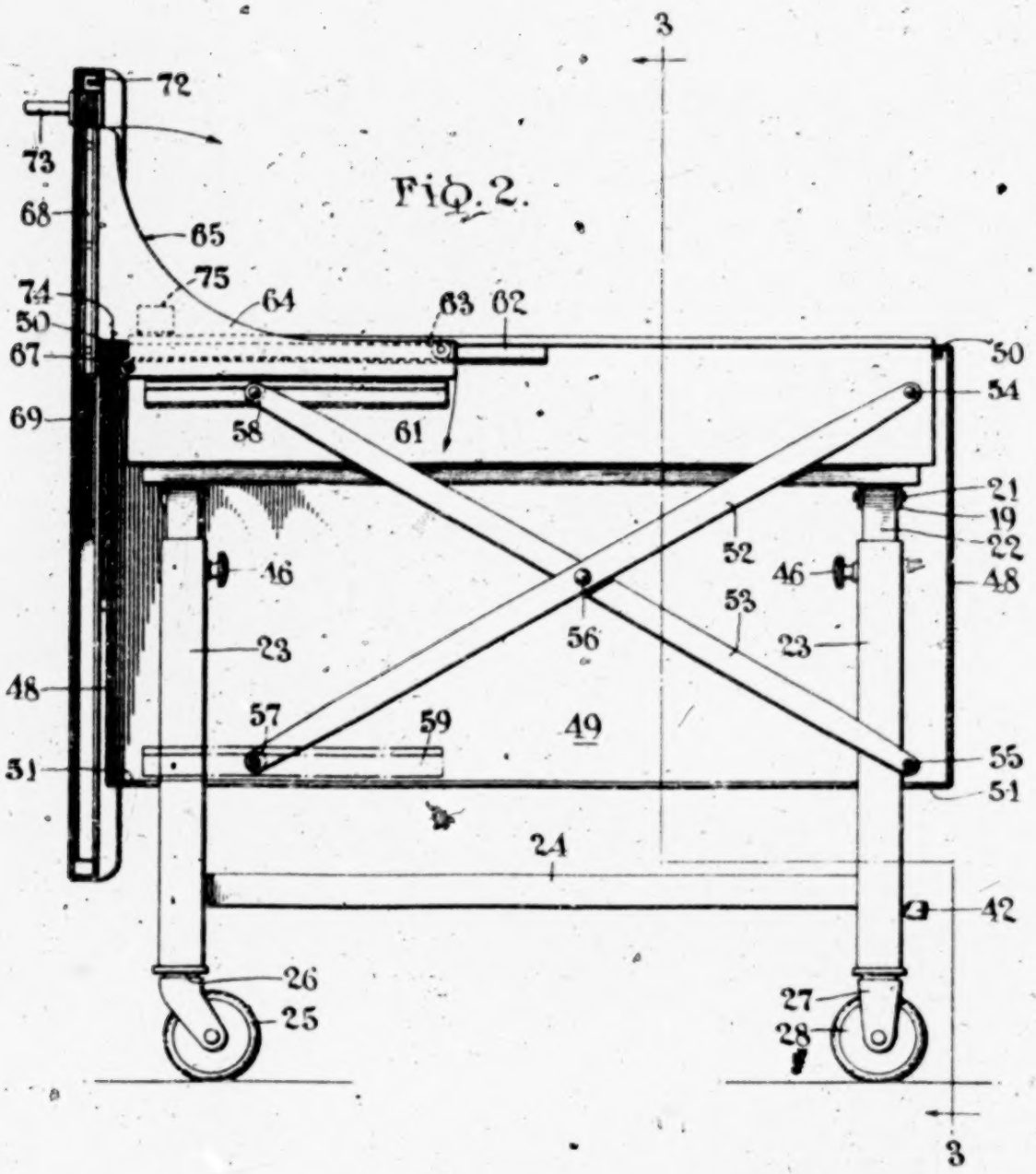

FIG. 7.

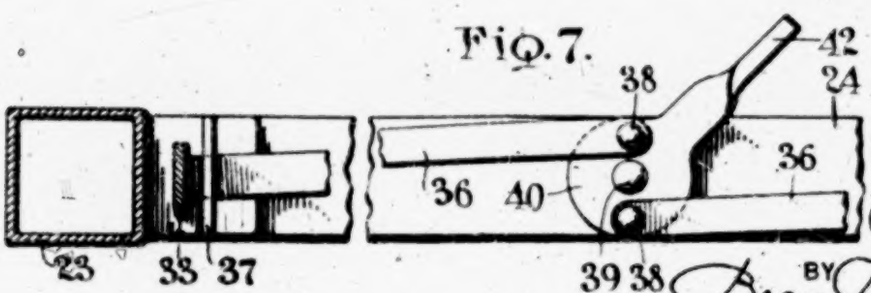

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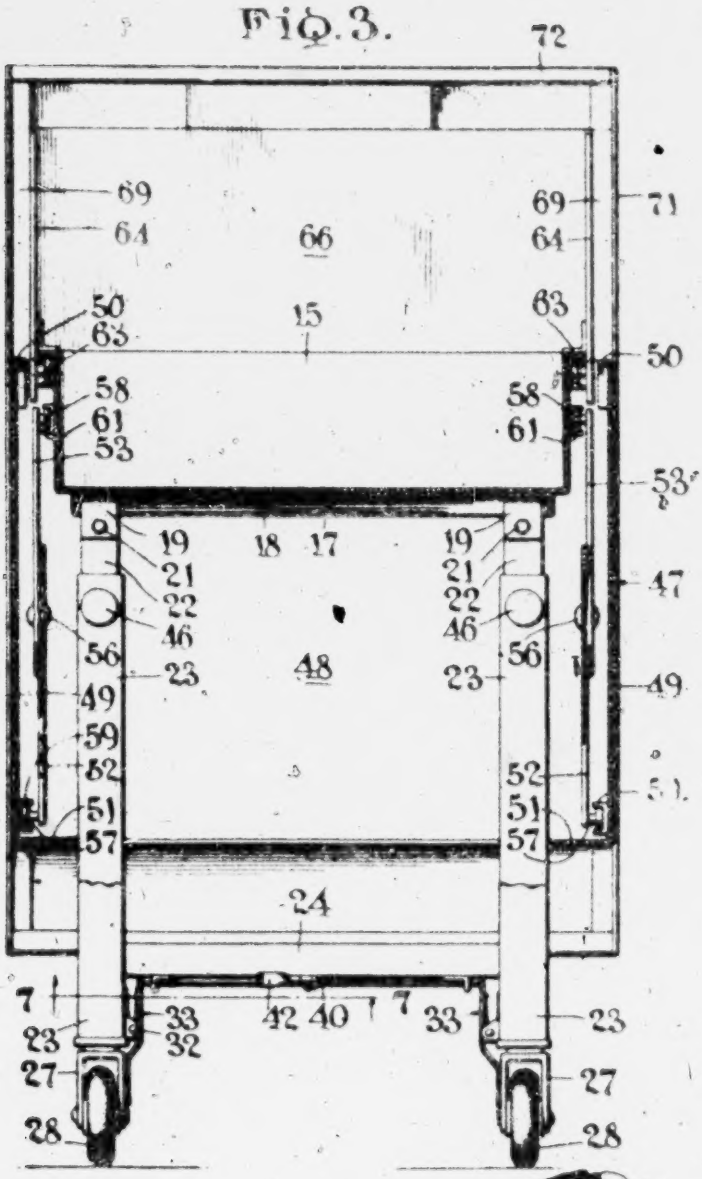
Fig. 3.



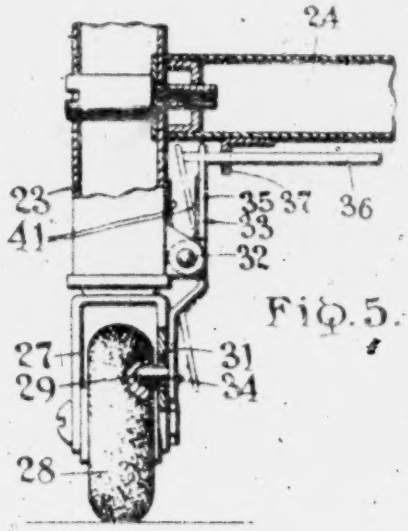


Fig. 5.

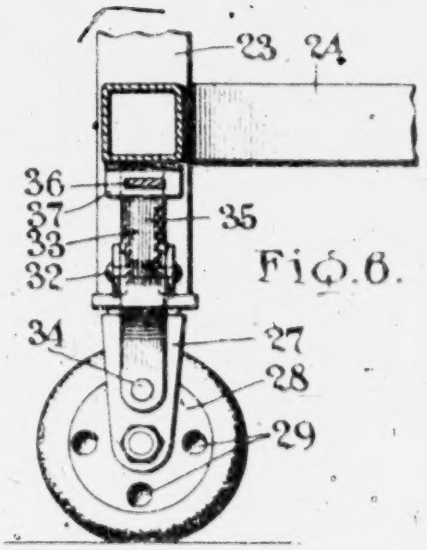


Fig. 6.

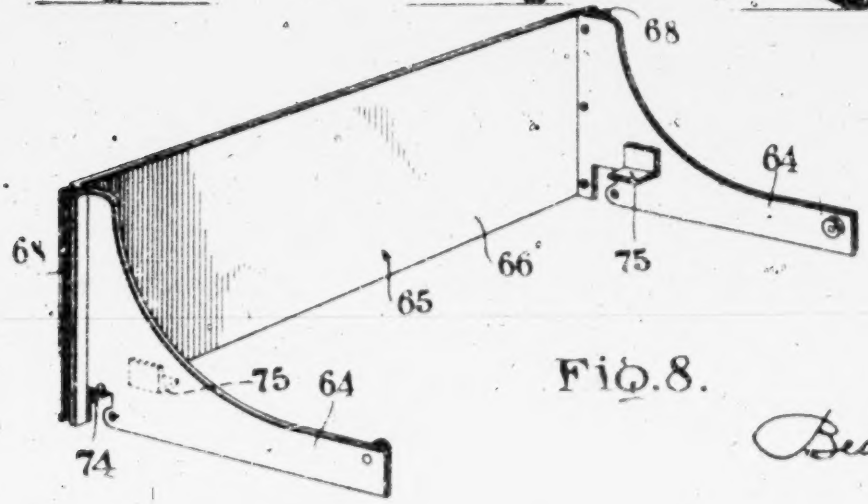


Fig. 8.

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Fig. 9.

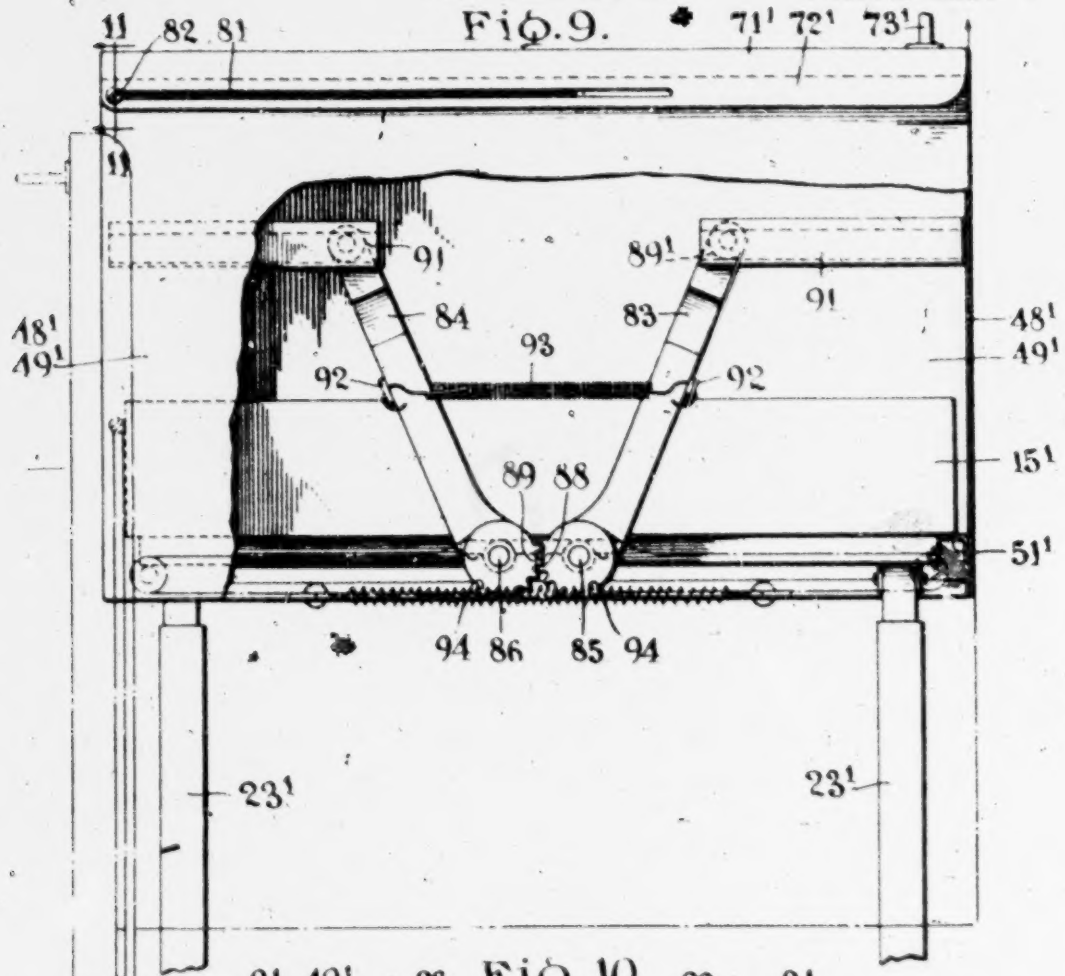


Fig. 10.

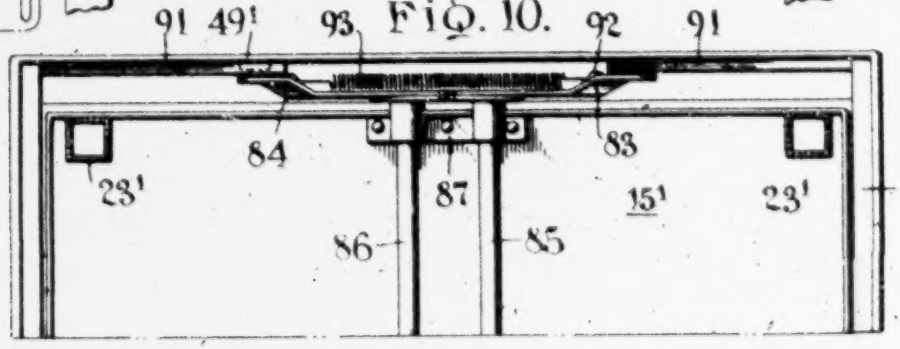


Fig. 11.

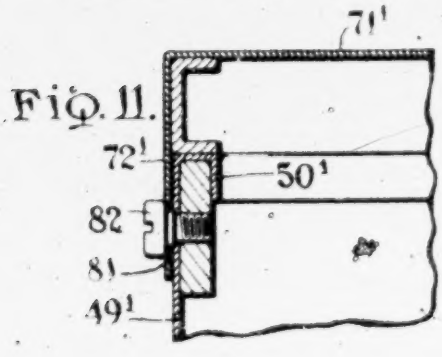
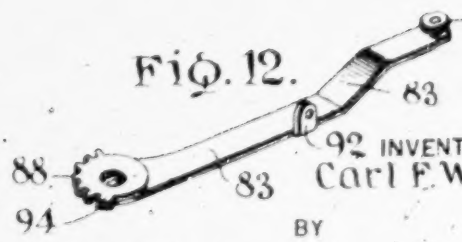


Fig. 12.



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Patented Apr. 3, 1934

1,953,900

UNITED STATES PATENT OFFICE

1,953,900

FILING CABINET

Carl F. Wolters, Marietta, Ohio, assignor to Remington Rand Inc., Buffalo, N. Y.

Application January 12, 1932, Serial No. 586,252

18 Claims. (Cl. 45—2)

This invention relates to cabinets adapted to support and house filing trays or other office equipment.

It comprehends, generally, the provision of means for supporting such tray at a height convenient to the operator, and an encasing frame and closure encasing and housing the filing tray when the latter is not in use, the frame and closure being adapted for lowering movement away from the filing tray to an open position when access to the filing tray is desired. Means are provided for guiding the frame and closure between closed and open positions, the guide means having associated therewith means for automatically retaining the parts in either position.

The invention further comprehends a cabinet supported on wheels in order that it may be readily moved to any desired position about an office, and means associated with the wheels for locking them to prevent movement of the device while it is being used.

These and other objects and advantages, including those related to the arrangement and conformation of the component parts, will become apparent from the following description of typical embodiments of the invention illustrated in the accompanying drawings, wherein:

Fig. 1 is a longitudinal vertical section showing the cabinet in closed or inoperative position;

Fig. 2 is a view similar to Fig. 1, but showing the cabinet in open or operative position;

Fig. 3 is a vertical cross-section taken on line 3—3 of Fig. 2;

Fig. 4 is a fragmentary sectional view taken on line 4—4 of Fig. 1;

Figs. 5 and 6 are respectively front and side views of one front wheel of the cabinet, showing the adjacent cabinet structure partly in section;

Fig. 7 is a bottom plan section taken along line 7—7 of Fig. 3, depicting brake actuating mechanism for the front wheels;

Fig. 8 is a perspective view of a member for supporting the cabinet closure or cover;

Fig. 9 is a side view, partly in section, illustrating another form of the invention;

Fig. 10 is a fragmentary bottom plan view, showing approximately half of the cabinet shown in Fig. 9;

Fig. 11 is a fragmentary section taken on line 11—11 of Fig. 9; and,

Fig. 12 is a detail perspective view of one closure actuating part shown in Fig. 9.

As shown in Figs. 1 and 3, the cabinet includes a flanged tray 15 for supporting a filing device, such as indicated at 16, or the like. The bottom of the tray is secured upon a plate 17 having a depending peripheral flange 18. U-shaped clips 19, fixed to the plate 17 adjacent the corners thereof, are fastened, as by bolts 21, to upper tubular leg sections 22. The latter telescope within lower tubular leg sections 23 which are joined together by rungs 24.

The tray 15 may be adjusted to the desired height by telescoping movement of the leg sections 22 and 23. A plurality of apertures 45 are provided in the latter for selectively receiving removable fasteners 46 which lock the leg sections together in the position desired.

At the bottom of each of the rear legs, or those depicted at the left of Fig. 1, is a caster, the axes of the wheels 25 of the casters being offset from the vertical caster pivot axis 26 to allow the cabinet to be moved readily in any direction. At the front end of the cabinet, the leg sections 23 are provided with fixed forks 27 in which wheels 28 are journalled. Each wheel has a series of recesses 29 therein and upon partial rotation of the wheel one of the recesses may be aligned with an aperture 31 in the inner leg of the fork.

Pivoted at 32 to the front leg section 23, are resilient levers 33, the lower arms thereof carrying pins 34 movable in apertures 31 into engagement with recesses 29 of the wheels for locking the latter against rotation. Upper arm portions 35 of the levers 33 are extended into engagement with actuating rods 36 slidably supported adjacent their outer ends in brackets 37 carried by the front rung 24. The inner ends of the rods 36 are pivoted at 38 to an actuating lever 40 pivotally connected at 39 to the bottom of the front rung. Springs 41 disposed and acting between lever arms 35 and leg sections 23 normally move the levers 33 to carry pins 34 into engagement with the recesses 29.

An operator may rotate the lever 40 by moving the pedal portion 42 thereof, thus effecting outward movement of rods 36 to retract pins 34 from the recesses 29 of the wheels. The frictional resistance of the lock mechanism is preferably great enough to hold the parts in retracted position against the tension of springs 41. To lock the device the lever end 42 is moved in the opposite direction, whereupon the springs will effect movement of the pins into the wheel recesses. In the event that the wheel recesses are not aligned with the pins, partial rotation of the wheels will produce such alignment, the

springs 41 insuring that the wheels will lock as soon as the aligned position is reached.

Extending about the tray 15 is a closed frame 47 having front and rear walls 48 and side walls 49, each having inturned flanges 51 at the bottom thereof and inwardly and thence downwardly extending flanges 50 at the upper edge thereof. Disposed at each side of the cabinet between the walls 49 and the side walls of the tray 15 are a pair of crossed links 52 and 53, respectively pivoted to the tray and side wall 49 adjacent the front of the cabinet, as indicated at 54 and 55. The links are pivoted together at 56, intermediate of their ends. The opposite ends of the links 52 and 53 are provided with rollers 57 and 58, respectively engaged in horizontal guide members or trackways 59 and 61 that are secured to rear portions of the tray 15 and side walls 49 of the frame 47 in horizontal alignment with the pivot points 55 and 54, respectively.

Above the guideways 61, on each side of the tray, are affixed horizontal guideways 62, receiving rollers 63 carried by the free ends of side arms 64 of a generally U-shaped member 65, the web 66 of which is approximately the width of the cabinet. The arms are pivoted at 67, adjacent the web 66, to side walls 49 of the frame. Adjacent the juncture of the web 66 and side arms are guide members 68 adapted for sliding engagement with channel guides 69 carried by a closure 71 at the sides thereof. The closure has peripheral return bent flanges 72 for abutment with flanges 50 of the frame walls 48 and 49.

A handle 73 is affixed to the forward end of the closure and by lifting the latter upwardly, thereby moving the closure 71 and U-shaped member 65 in a counter-clockwise direction (as the device is viewed in Figs. 1 and 2) about the pivot axes 67, the frame will be lowered to the position shown in Fig. 2 by reason of the movement of rollers 63 in the guideways 62. Subsequently the closure 71 may be lowered to the position shown in Fig. 2, the guide channels 69 thereof moving downwardly guided by members 68 carried by the U-shaped member 65. The arms 64 of the latter are cut away, as indicated at 74 in Fig. 2 to permit of the frame lowering movement. Brackets 75, for abutment with the upper side wall edges of the tray 15, when the frame is lowered, are carried by the arms 64 to relieve the pivots 67 of the weight of the closure after lowering movement.

To close the cabinet and raise the frame walls the handle is moved upwardly and forwardly, reversing the action heretofore described and bringing the parts to the relative positions shown in Fig. 1. It will be understood that the link and guide mechanism 52, 53, 59, 61 will at all times retain the frame walls 48, 49 in proper vertical alignment relative to the tray 15. When the frame and closure are lowered, as shown in Fig. 2, the contents of the tray are exposed and accessible, and the parts will be retained in such position by gravity. When the frame is raised and the closure is in the position of Fig. 1, the contents of the tray will be completely enclosed, the flanges 51 of the frame walls abutting the bottom of the tray to prevent the entrance of dust or moisture. The parts are likewise retained in closed position by the weight of the closure 71, since the pivot points 67 and the rollers 63 are in substantially vertical alignment at such times.

In the form of the invention shown in Figs. 9 to 12 inclusive, the tray 15' is supported by legs 23' and is encased by a frame having front and rear walls 48' and side walls 49'. The frame has a flange 51' at the bottom thereof adapted to abut the bottom of the tray 15' and a peripheral return bent flange 50' at the top thereof.

Closure 71' has depending side flanges 72' provided with elongated slots 81 slidably receiving pins 82 secured to the side walls 49', each pin being disposed adjacent the rear upper corners of the respective side wall. By means of a handle 73' on the forward end of the closure, the latter may be rotated upwardly about the pin axes and then moved downwardly to the broken line position depicted in Fig. 9, the pins sliding in the slots 81 during such movement.

The frame is supported at each side by a pair of arms 83 and 84 mounted on shafts 85 and 86 respectively, rotatable in brackets 87 carried by the bottom of tray 15'. Gear segments 88 and 89 are formed on the respective arms about the axes of shafts 85 and 86, the teeth of one segment meshing those of the segment of the other arm of the pair. Rollers 89' are mounted on the free ends of the arms and are guided in horizontal guideways 91 carried by the frame. Each arm has a spring attaching extension 92, the extensions of each pair of arms being connected by a tension spring 93. Stop projections 94 on segments 88 and 89 cooperate to limit the downward movement of the arms.

When the frame is raised, or in the position shown in full lines in Fig. 9, the effective lever arms of the arms 83 and 84, upon which the springs 93 act, is sufficiently great that the spring will urge the arms 83 and 84 together so that the rollers 89 will have an upward component of force, pressing the frame flange 51' into contact with the bottom of tray 15'. To lower the frame, the operator need only press it downwardly to the broken line positions of Fig. 9, thereby rendering the contents of the tray accessible. In lowered position the vertical component applied by springs 93 to raise the arms and frame is reduced to such an extent that the weight of the frame either overcomes this vertical component and retains the arms in the lowered position with stop projections 94 in engaged relation, or the spring passes the shaft axes as indicated by dot and dash lines in Fig. 9.

The frame will remain in lowered position until raised by the operator. It will also be understood that the relation between arms 83 and 84, springs 93 and stops 94 and the associated mounting and housing structure may be arranged so that the spring action may be applied to provide a snap action by the spring and the force components moving past the shaft axis, as suggested by the showing of Fig. 9.

It will be understood that the gear segments 88 and 89 together with shafts 85 and 86 will co-act to maintain the arms 83 and 84 in the same corresponding positions relative to tray and frame, thereby maintaining the frame horizontal during lowering and raising movements, and while it is positioned at its limits of movement.

It will further be understood that the embodiments herein described and illustrated are merely illustrative of the inventive principles involved, which may be applied with advantage to devices having other structural characteristics, all within the purview of this invention.

What is claimed is:

1. In a cabinet, a tray and supporting means therefor, an open topped frame extending about the side walls of said tray, means for guiding the frame for vertical movement relative to the tray,

a closure for said frame, a member pivoted to the frame adjacent one end of the tray and having sliding engagement with the closure for permitting longitudinal movement of the closure, an arm carried by said member extending from the pivot axis, said arm being disposed between a wall of said tray and the adjacent wall of said frame, and means connecting said tray and the free end of said arm, whereby said closure may be moved to a substantially upright position adjacent one end of the frame with its center of gravity beneath the pivot axis, and upon movement to such position that the frame will be lowered relative to the tray to provide access to the latter.

2. In a cabinet, a tray and supporting means therefor, an open topped outer casing extending about and enclosing the tray, guide means between the tray and casing for guiding the latter for vertical movement relative to the tray, cover means including a closure for the casing, said cover means being pivoted to the casing at one end thereof, and means connecting the cover means and tray for moving the casing downwardly relative to the tray upon upward movement of the closure about the pivot axis.

3. In a cabinet, a tray and supporting means therefor, an open topped frame extending about the tray, guide means between the tray and frame for guiding the latter for vertical movement relative to the tray, cover means including a closure and an arm extending substantially transversely thereof, a projection at the outer end of said arm, and a substantially horizontal guideway for said projection carried by the tray, whereby, upon movement of said closure about the pivot axis to a substantially upright position, said frame will be lowered relative to the tray to provide access to the tray.

4. In a cabinet, a tray and supporting means therefor, an outer casing embracing said tray, and link means carried by the tray and connected to and located inside the casing for guiding the casing for vertical movement relative to the tray to enclose articles supported on the tray in the upper position and extending substantially below the tray in the lower position to expose said articles, said link means including a pair of links each having one end connected to the tray and one end connected to the casing, and means associating the links for maintaining the ends thereof which are connected to the casing in the same horizontal plane.

5. In a cabinet, a tray member and supporting means therefor, an outer casing member normally extending about said tray member, and means for guiding the casing member for downward movement relative to said tray member to extend below said tray in lowered position, said means comprising a pair of links at each side of the cabinet disposed between the tray member and casing member, said links each having one end connected to the tray member and the opposite end connected to the casing member, one connection of each link comprising a pivot and the other comprising a roller engaged in a horizontal trackway carried by one of said members, and means associating the links of each pair for maintaining in the same horizontal plane the ends of the links which are connected to the casing.

6. In a cabinet, a tray and supporting means therefor, an outer casing normally extending about said tray, means carried by the tray for guiding the casing for vertical movement relative to said tray, a closure for said casing, means for supporting the closure upon the casing for movement from above the casing to one side thereof, and means operable upon said movement of the closure to lower the casing to extend below the tray.

7. In a cabinet, a tray and supporting means therefor, a frame normally extending about said tray and having a continuous flange at the bottom thereof for engaging the bottom of said tray, a closure at the top of the frame, and mounting means for the frame and for the closure whereby the frame may be lowered and the closure may be moved to one side of the cabinet to permit of access to the tray.

8. In a cabinet, a tray and supporting means therefor, an outer casing normally extending about said tray and forming movable side and end walls therefor, a pair of links on the inside of said side walls of the cabinet, said links being pivoted to each other medially of their ends, each link being connected at one end to the tray and at its opposite end to the casing, the connections of said links at one end of the cabinet comprising fixed pivots and the connections at the opposite end of the cabinet comprising a roller mounted on each link and a horizontal guideway on the tray and casing, each guideway engaging one of said rollers.

9. In a cabinet, a tray and supporting means therefor, an imperforate casing normally extending about said tray to enclose the same, a pair of links on each side of the cabinet between the casing and the tray, the links of each pair being pivoted together medially of their ends, each link being connected at one end to the tray and at the opposite end to the casing, the connections of one pair of links at one end of the cabinet being pivoted, and the connections of said one pair of links at the other end of the cabinet comprising rollers on the links engaging horizontal trackways on the tray and casing, said casing housing said links in all relative positions thereof, and said casing extending substantially below the tray in lowered position.

10. In a cabinet, a tray and supporting means therefor, an outer imperforate sheet metal casing normally extending about said tray, a pair of links on each side of the cabinet between the casing and the tray, the links of each pair being pivoted together medially of their ends, each link being connected at one end to the tray and at the opposite end to the casing, the connections of one pair of links at one end of the cabinet comprising fixed pivots and those at the opposite end comprising pivots movable horizontally relative to the tray and casing respectively whereby the casing may be lowered to a position to extend substantially below the tray.

11. In a cabinet, a tray including supporting means therefor, a continuous frame having side and end walls extending about said tray and a closure at the top of said tray, said closure having a side flange depending over one side wall of said frame, a horizontal slot in said flange and a pin extending from the frame and through said slot, means carried by the tray for supporting the frame for lowering movement, whereby the closure may be moved to a vertical position adjacent one end wall of the frame and the frame may be lowered to provide access to said tray.

12. In a cabinet, a tray member and supporting means therefor, an outer casing member of imperforate sheet metal normally extending about said tray, a pair of links at one side of the cabinet, said links being pivoted at one end

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to one of said members and having rollers at their opposite ends, and horizontal trackways on the other of said members guiding and supporting said rollers whereby said casing encloses the tray and contents in its upper position and extends below the tray in lowered position to expose the contents of said tray.

13. In a cabinet, a tray and supporting means therefor, a frame normally extending about said tray, a pair of links pivoted to said tray, said links diverging upwardly from the pivot points and having rollers at their upper ends, horizontal guide means on the frame supported upon the rollers, gear segments carried by each link, said segments being in mesh, and spring means connecting said links for retaining said frame in normal position.

14. In a cabinet, a tray and supporting means therefor, a frame normally extending about said tray, a pair of links pivoted to said tray, said links diverging upwardly from the pivot points and having rollers at their upper ends, horizontal guide means on the frame engaging said rollers, means connecting the links for movement of the same amplitude in opposite directions about their pivot axes, and spring means connecting the links for retaining said frame in normal position, said links being ineffective to return the frame to normal position when it is lowered to bring said links to substantially horizontal positions.

15. In a cabinet, a tray and supporting means therefor, an open ended sheet metal casing embracing said tray having inwardly extending flanges on the upper and lower ends, the flange on the lower end engaging the bottom of said tray to limit upward movement thereof, guiding and elevating means housed on the inside of said casing between said flanges and connected with said tray, and a cover for the upper end of said casing connected to said means for operating said means in movement of the cover to open position to lower said casing to extend substantially below said tray.

16. In a cabinet, a tray and supporting means therefor, an open ended sheet metal casing forming side and end walls for said tray and embracing said tray, said casing having inwardly extending flanges on the upper and lower ends, the flanges on the lower end portion engaging the tray bottom in elevated position of said casing, guiding and operating means inside said casing and between said flanges adjacent said side walls connected with said tray for guiding said casing between an elevated position extending above said tray and a lower position extending substantially below the tray, and a cover on the upper end of said casing movable to an open position adjacent a side of said casing.

17. In a cabinet, a tray, a sheet metal casing forming side and end walls for said tray, an inverted U-shaped member having the connected ends of side arms thereof pivoted to the upper end of said casing and the free ends of said side arms supported and guided by said tray, a cover slidably mounted on said U-shaped member and adapted to move said member on its pivot to raise and lower the casing relative to the tray, and guiding means between the tray and casing.

18. In a cabinet, a tray, a sheet metal casing forming side and end walls for embracing said tray having inturned flanges on the upper and lower end portions, the flange on the lower end portion substantially engaging the bottom of said tray in the upper position to enclose said tray and contents, a U-shaped member having side arms connected at one end and pivoted on said casing, the free ends of said side arms having a travelling connection with the sides of said tray, and a cover slidably mounted on said U-shaped member operable to move said member on its pivot and lower and raise said casing relative to said tray.

CARL F. WOLTERS.

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Oct. 20, 1925. 1,558,234

A. M. BUNN

FEEDING DEVICE FOR SORTING MACHINES

Filed Dec. 19, 1923 2 Sheets-Sheet 1

Fig. 1.

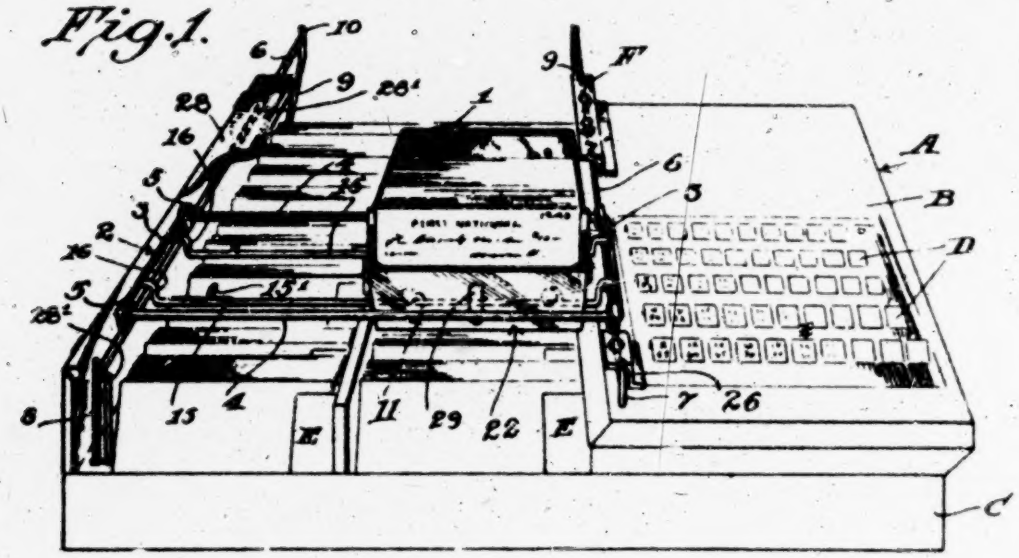


Fig. 2.

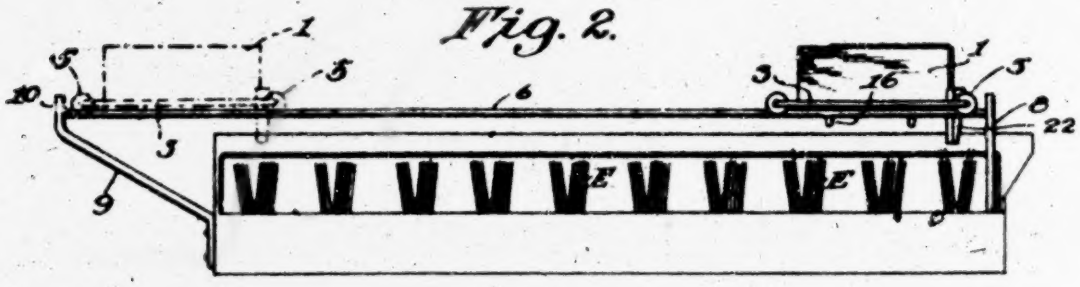


Fig. 3.

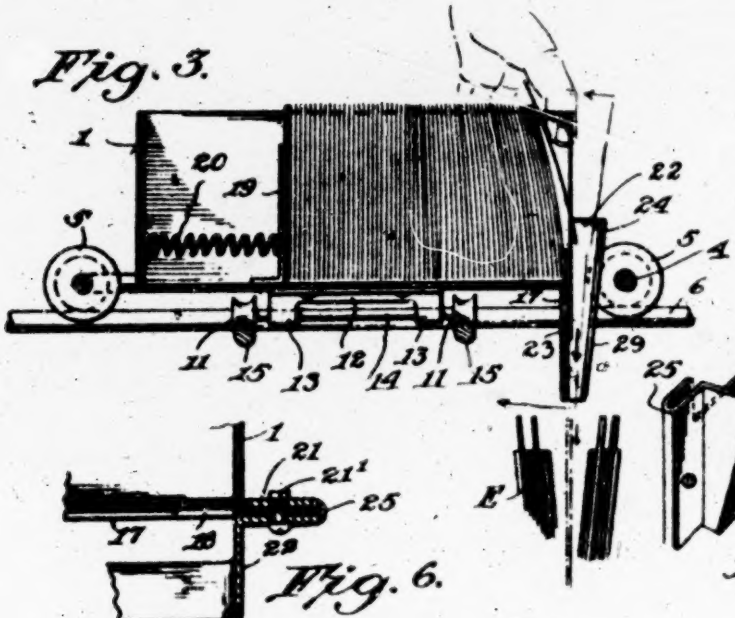


Fig. 5.

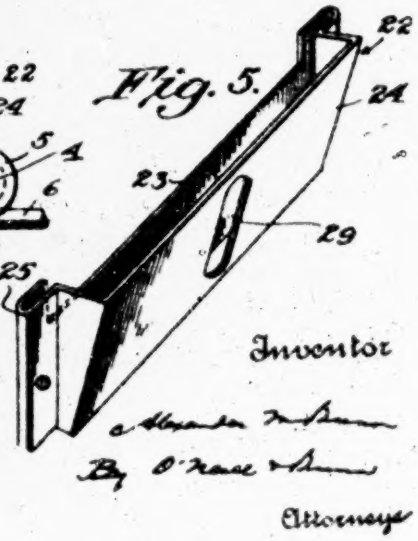
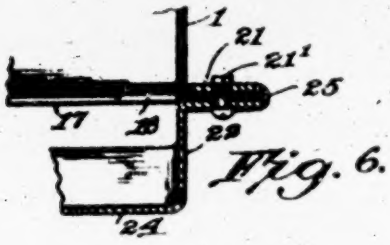


Fig. 6.



Inventor

By O'Neal & Burn

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A. M. BUNN

FEEDING DEVICE FOR SORTING MACHINES

Filed Dec. 19, 1923 2 Sheets-Sheet 2

Fig. 7.

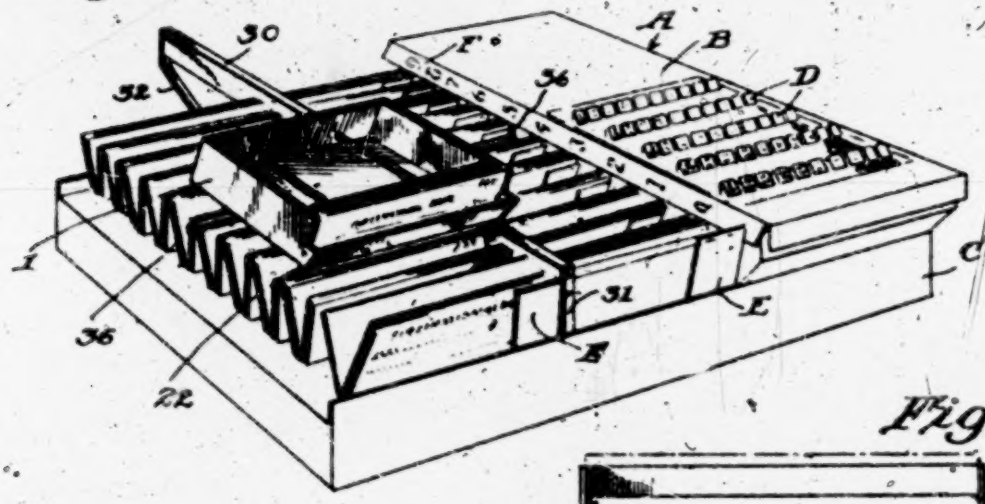


Fig. 8.

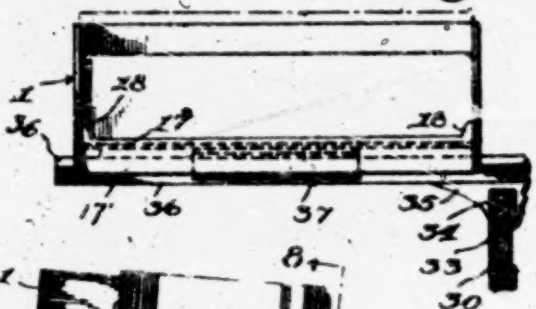


Fig. 10.

Fig. 9.

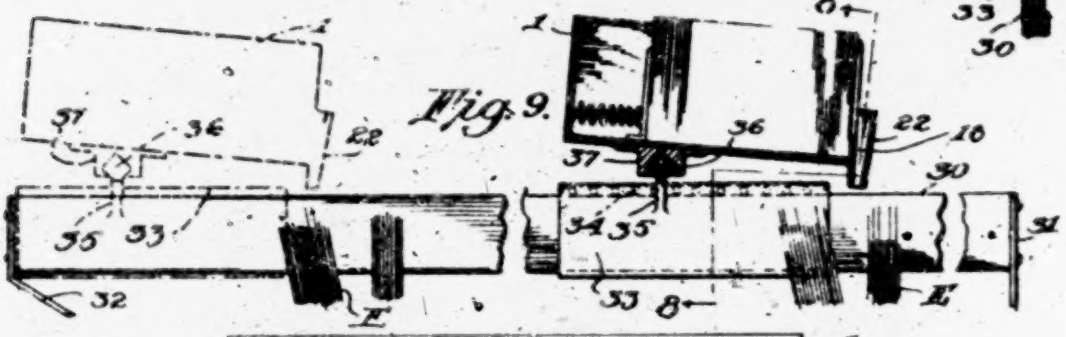
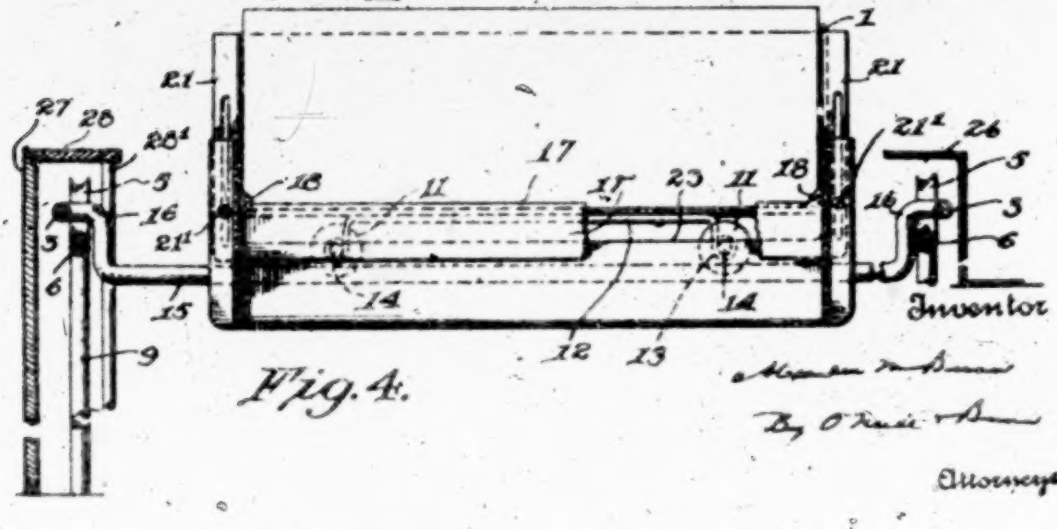


Fig. 4.



Inventor

By

Attorneys

Defendant's Exhibit F

Patented Oct. 20, 1925. 1,558,234

UNITED STATES PATENT OFFICE

ALEXANDER M. BUNN, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO NATIONAL ASSORTING COMPANY, OF WASHINGTON, DISTRICT OF COLUMBIA, A CORPORATION OF DELAWARE.

FEEDING DEVICE FOR SORTING MACHINES.

Application filed December 19, 1923. Serial No. 681,646.

To all whom it may concern:

Be it known that I, ALEXANDER M. BUNN, a citizen of the United States, and resident of the city of Washington, District of Columbia, have invented certain new and useful Improvements in Feeding Devices for Sorting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to feeding devices for sorting machines, and more particularly to machines of that character where manipulation of an actuating bar is effective to simultaneously provide a plurality of spaces, each of which is classified in accordance with certain designations carried by the article being sorted. Such a machine is disclosed in the application of George W. Cox, Jr., filed May 6, 1922, Serial No. 559,020.

In the aforesaid application a plurality of actuators are so positioned with respect to a multiplicity of pivotally mounted spacer elements arranged in groups that a reciprocation of any actuator will simultaneously move correspondingly positioned leaves in each group, each actuator bearing indicia classifying it with certain designations carried by the article being sorted. Additional indicia may be carried by the machine to classify each group, in accordance with additional designations carried by the article being sorted, and, by means of this machine, after the final sort, each article is in its proper position between the spacer elements.

In the utilization of the aforesaid machine for sorting papers, such as bank checks, either alphabetically or numerically, it has been customary for the operator to pick up the check with one hand, look at the name of the maker of the check, during the alphabetical sort, or at the number of the check, in the numerical sort, and to then use the other hand to cause a reciprocation of that actuator which is classified in accordance with the name of the maker of the check, or with a portion of the numerals included in the check number. This operation would cause a space to be provided in each of the groups of spacer elements which project outwardly from the machine, and the operator then places the check in that group which, because of indicia carried by the machine, or which, merely by the position of the group, in a row of groups, is classified in accordance with additional designations carried by said check, whether alphabetical or numerical.

The operation of sorting checks may be carried out much more quickly by the provision of an article carrier which is adapted for movement over all the groups of spacer elements, hereinafter called leaves, and which may be brought directly over any space which may be provided in any group thereof.

It is therefore the object of the invention to provide, for a machine of this character, an article-feeding device which comprises a receptacle or carrier, adapted to retain a plurality of the articles being sorted, and which is so anti-frictionally mounted as to be easily moved over all of the groups of leaves, and directly over any space which may be formed between any two leaves of any group.

Another object of the invention is the provision of means whereby the indicating designation of the article being sorted is always directly in front of the operator.

A further object of the invention is the provision of means whereby, after the carrier has been brought into position over the space provided in that group appropriate to the designation of the article, which is in front in the carrier, the article may be readily separated from the other articles in the carrier and allowed to gravitate into said space.

A still further object of the invention is the provision of means adapted to limit the lateral movement of the carrier to a position directly over the group of leaves into which it will be dropped, whereby the articles, such as checks, will always be in alignment with and immediately above the space which it is to enter.

The above and other objects of the invention will be made clear in the following specification, when read in connection with the drawings forming a part thereof.

In said drawings:

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Fig. 1 is a perspective view, partially broken away, showing a sorting machine of the class described equipped with my invention;

Fig. 2 is a side elevation of the machine;

Fig. 3 is a vertical section taken longitudinally through the article carrier;

Fig. 4 is a transverse section taken through the carriage of the feeding device;

Fig. 5 is a perspective view of the feed chute for the carrier;

Fig. 6 is a detail sectional view showing the method of adjustably connecting the feed chute to the carrier;

Fig. 7 is a perspective view showing a modified form of carrier and carriage therefor;

Fig. 8 is a section on line 8—8, Fig. 9;

Fig. 9 is a fragmentary view showing the carriage, and the carrier in section; and

Fig. 10 is a detail, partly in section, and showing the anti-friction rollers for the carriage which supports the carrier.

Now referring specifically to the drawings, A represents generally a sorting machine of the general class hereafter referred to. Such a machine comprises a housing B mounted upon a support C. The machine is provided with a plurality of actuators each of which carries a projecting finger piece, which pieces are diagrammatically indicated at D, and each actuator carries depending lugs adapted for contact with one of the leaves in each of the groups of leaves E which project, as shown in Figs. 1 and 2, laterally of the machine. By means of indicia carried on the finger pieces D, which are classified in accordance with designations on the articles being sorted, the operator causes a reciprocation of that actuator which is classified in accordance with certain designations carried by the article being sorted, and the movement of the actuator simultaneously separates a leaf in each group from the leaf adjacent thereto, it being noted that each actuator contacts only similarly positioned leaves in each group. Briefly, then, when any one actuator is reciprocated, it simultaneously opens similarly positioned spaces in each group, and each of these spaces is classified to accord with a certain designation carried by the article which is to be placed in one of the spaces.

The group to which the article belongs is determined by other designations carried by the latter, and the groups are arranged in rows, the position of the group determining its clasification. For assisting the operator to quickly determine the classification of any particular group of leaves, the machine is here shown as equipped with a strip F, mounted upon the housing B, and extending above and transversely of the groups of leaves, the strip bearing numerals 0 to 9, one numeral being exactly opposite each group.

The machine is here shown as provided with two parallel rows of groups of pivotally-mounted leaf-portions E, each row containing 10 groups, the bodies of the leaves extending under the machine and each being adapted for contact by its associated actuator, under reciprocation of the latter. Each leaf body E extends laterally of the machine, and is provided with two upwardly extending leaf portions or projections, which are preferably integral with the body of the leaf, and these projections form the groups heretofore referred to.

In the operation of the machine heretofore, in the sorting of a plurality of checks bearing numbers, it has been necessary for the operator to pick up a check with one hand, and, after noting the number thereof, reciprocate the actuator which is classified in accordance with a portion of the number of said check. Such reciprocation opens up a plurality of spaces, one in each group, each space being classified in accordance with every other space. The operator then carries the check to a point above that group, the position of which indicates its classification in accordance with another portion of the number carried by the check, and the check is then placed in the open space in that group.

This invention contemplates the utilization of a movable carrier which is adapted to receive and hold a plurality of checks in such stacked relation that the checks are always projected towards the delivery end of the carrier, with the number of the check and the name of the maker approximately in front of the operator at all times.

Fig. 1 shows a carrier 1, of the class referred to, mounted upon the housing B of the sorting machine. The carrier 1 is mounted upon a carriage 2, which is here shown as of rectangular formation and composed of metal rods 3, 3, and 4, 4, forming a frame work, and flanged wheels 5 are anti-frictionally mounted at each point of juncture of the rods 3 and 4, as indicated. The wheels 5, 5 are adapted for travel over the rails 6, 6, the front end of one of said rails 6 being here shown as mounted on a post 7, carried by the housing B and the other being similarly mounted on a post 8 carried by the support C. The rear ends of the rails 6, 6 are supported by brackets 9, 9, which are secured to the rear of the housing C, and are outwardly and upwardly inclined therefrom, the upper ends 10 of the brackets extending above the rails, which ends 10, and the upper ends of the posts 7 and 8, limit the longitudinal movement of the carriage 2, the rearwardly extending brackets 9, 9 permitting movement of the carriage to its rearmost position in order

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that it may be positioned over the last group of leaves in the row of groups. From the foregoing it will be obvious that the carriage is adapted for movement to a position directly over any group of the row of groups of leaves which extend longitudinally of the machine A.

The carrier 1 comprises a receptacle or box-like structure of any length desired, and of a width not less than the length of the bank check of average size. It is provided on its bottom with at least four wheels, 11, 11, in the preferred embodiment of the invention, which wheels may be secured by a retaining bar 12, secured adjacent each end to the bottom of the carrier, and provided with a loop 13 at each end, adapted to anti-frictionally engage the axle 14, of the wheels 11, 11. The wheels 11 ride upon a track consisting of two metallic rods, 15, 15, secured at each end to the side rods 3, 3, of the carriage 2, said rods 15 also serving to brace carriage 2, and each being offset at 16, below the plane of rotation of the wheels 5, 5, so as to allow the carrier to hang, as nearly as possible, directly above the upper edges of the leaves E.

Mounted upon each of the rods 15, 15, are two inwardly facing curved detents 15', 15', constituting abutments for the wheels 11, 11, and limiting movement of the carrier 1 longitudinally of the leaves E, said detents being so positioned on the rods 15 that the carrier, when stopped by one or the other of the detents, is centrally positioned directly over the group into which a check is to be delivered.

The carrier 1 is closed at its sides and rear end, and the front end is open, except for the provision of a narrow strip 17 which extends across the lower edge of the front of the carrier, and terminates at each end in upwardly extending projections 18, secured to the sides of the latter. As shown in Fig. 3, a large number of checks may be arranged in the carrier 1, the numbers and names of the makers thereof being towards the front. A follower 19, actuated forwardly by a spring 20, constantly presses the checks towards the front of the carrier, the strip 17 and projections 18 preventing the undesired egress from the latter.

The front edges of the sides of the carrier are shown, Figs. 4 and 6, as provided with laterally extending flanges 21, which may be integral therewith or attached thereto, or the flange 21 may be carried by the bottom of the carrier. A feed-chute 22 is mounted in front of the strip 17, and is here shown as provided with a vertically extending inner wall 23, and an inclined outer wall 24, the outer wall 24 rising above the top of the strip 17 and projections 18, for a purpose to be later described. The wall 24 is inclined inwardly and downwardly, and forms, with the wall 23, a chute which is wider at its top than at its bottom, as clearly shown in Fig. 3. The walls 23 and 24 are here shown as connected by extensions 25 adapted to fit over the flanges 21, and to be adjustably secured by set screws 21', extending through registering apertures in the extensions 25 and elongated slots in the flanges 21, as shown in Figs. 4 and 6. A downward extension 17', of the strip 17, fits against the inner surface of the wall 23, to provide a more rigid and efficient structure. This construction is advantageous in permitting adjustments of the vertical position of the chute 22.

Mounted upon the housing B is a double-angled strip or Z-bar F, adapted to cover the right-hand wheels 5 and track 6 of the carriage 2, and a combined arm support and housing 27 is provided to cover the wheels 5 and track 6 at the left of the machine. The strip F and the housing 27 may both be provided with a row of designations, one over each group of the leaves E, adapted to indicate the classification of the groups. The housing 27 carries a hinged top 28 for a purpose later explained, said top being supported in its horizontal closed position by two posts 28', 28'.

In the sorting of papers on machines of the class described the machine is usually equipped with means adapted to sort papers such as checks, numbered from 1 to 999, inclusive, and there are usually 10 groups of leaves arranged in one row only, each group being made up of 50 leaves, adapted to receive two checks between every two adjacent leaves. Other machines are constructed in accordance with the views shown in Figs. 1, 2 and 7, in which there are 50 leaves in each of the 10 groups of two parallel rows, and one check is to be deposited between each of the two adjacent leaves in every group in each row. Obviously, a machine may be provided with 20 groups of 50 leaves each, making provision for the reception of one check between all of the adjacent leaves.

In the operation of my device with the type of machine shown in Fig. 1, the operator will rest his left arm upon the top 28 of the housing 27, the hand resting upon the carrier 1, and the thumb of the left hand pressing backwardly upon the front face of the first or front check, as shown in Fig. 3. Having already noted the number of the front check, which is, say, 762, the operator pulls forward the finger piece D bearing the number 62, which operation simultaneously opens, in each group of the leaves E, a space which is proper for all checks having 62 as the last two digits. The carrier is then moved longitudinally of the housing B to a position immediately above the group below the numeral 7 on the plate 26, which is the

eighth group from the front, since the first group bears the "0" designation, and the check is dropped into the open 62 space in said group.

It is to be understood that, in machines of the class shown herein, provided with two rows of groups, each finger piece D bears two sets of numbers, such as

$$\frac{1}{51}, \frac{12}{62}, \frac{30}{80},$$

etc., the bottom number on each finger piece being 50 higher than the top number. The left-hand row of groups is intended to receive all checks bearing such a number that the two terminal digits aggregate 50 or less, and the right-hand row of groups to receive all checks in which the two terminal digits aggregate 51 or more. Therefore, when the spaces 62 were opened in the row of groups on the right-hand side, the spaces in the row of groups on the left, while similarly positioned, were proper for the reception of all checks the numbers of which ended in 12, and, if the check referred to had been No. 712, the carrier would have been brought up to the group opposite the numeral 7 and pulled over to the left, and the check deposited in the open space in the left-hand group opposite the numeral 7.

When the chute 22 is stopped by one of the detents 15′ and is opposite its proper numeral on the plate 26, as indicated by the number on the front check, the operator pulls up the front check slightly until its bottom edge is disengaged from behind the strip 17 and the projections 18. This releases the check except from the pressure of the finger of the operator and, from the position shown in Fig. 3, it will tend to flip outwardly at the bottom and assume a straight line. Such action will cause its lower edge to project over the inner wall of the chute, and the operator then releases the check and it passes downwardly through the chute and into its proper space and group.

The device is adapted to deliver to the machine, not only bank checks, but other papers and of any size. Many of these papers have been previously folded, and certain of them may, after being released by the operator, spring into a distorted condition which would prevent ready gravitation down a chute defined by parallel walls. In order to obviate such difficulty, the mouth of the herein-described chute is much wider than the exit, so that papers which are not approximately straight will nevertheless readily enter the chute. Moreover, I provide in the outer wall 24 of the chute, a vertically extending slot 29, whereby the operator's finger may reach and push downwardly any paper which lodges in the chute. Normally, however, the pressure of the spring 20 will be sufficient to flatten out all of the papers held in the carrier 1, and they will readily descend the chute 22.

Figs. 7 to 10 show a modification, wherein a bar 30, is suspended by brackets 31, 32, between two rows of groups of the leaves E. A slide 33, here shown as composed of a strip of sheet metal, is provided with top and bottom flanges adapted to extend around the top and bottom surfaces of the slide 33, and over a portion of the opposite face thereof. Between the top of the slide 33, and the top of the bar 30, are interposed a plurality of anti-friction devices 34, here shown as bearing balls, the ends of the top flanges of the slide 33 being downwardly upset to retain the balls 34 in position. If desired, the anti-friction devices may also be applied between the bottom of the bar 30 and the slide.

The slide 33 carries, near its top, an upwardly projecting bracket 35, upon which is mounted a chamfered rod 36, which extends transversely of the bar 30, and longitudinally of and over the leaves in the two rows of groups, in the machine herein shown. Attached to the bottom of the carrier 1 is an elongated member 37, provided with a longitudinally-extending groove adapted to receive the rod 36, and having an open lower face. The sides of the groove are squared to fit the chamfer on the rod 36, as shown in Fig. 9, and the member 37 and the rod 36 are so designed that, when the rod 36 is in the groove of the member 37, the carrier 1 is tilted downwardly at its front end, so that the lower end of the chute 22 will barely clear the bar 30, as it passes thereover.

It is obvious that, by the construction just described, the carrier may be anti-frictionally moved backwardly or forwardly, as desired, over the bar 30, or laterally over the rod 36, and that the carrier therefore may be positioned over any space in any group in either row of leaves E. Stop members similar in function to the members 15′, may be provided on the rod 36, whereby to longitudinally center the carrier over each group.

After the machine A is filled with checks, the top 28, of the housing 27, is swung backwardly, the carriage pushed to the extreme rear and the checks removed in the order of the groups.

Various modifications of the herein-described structure may be suggested to those skilled in the art, but my invention covers all embodiments falling fairly within the scope of the appended claims.

I claim:

1. The combination, with a sorting apparatus equipped with means for simultaneously providing a plurality of spaces classified for the reception of articles carrying a designation in consonance with the classifi-

catic a of certain of the spaces, of an article carrier mounted for travel into juxtaposition to any selected space, and means facilitating the delivery of a separate article into said space.

2. The combination, with an apparatus for sorti. a multiplicity of promiscuously arranged articles each bearing classifying designations, and equipped with means for simultaneously providing a plurality of spaces classified in consonance with said designations, of an article carrier mounted for anti-frictional travel into a position adjacent any elected space and provided with means facilitating the delivery of a separate article into said space.

3. The combination, with a sorting apparatus provided with a plurality of separator elements arranged in parallelism and with means for separating any element from the element adjacent thereto, of means adapted to receive a multiplicity of the articles to be sorted, and mounted for anti-frictional travel over all said elements, substantially as described.

4. The combination, with a sorting apparatus provided with a plurality of separator elements arranged in parallelism and with means for separating any element from the element adjacent thereto, of means adapted to receive a multiplicity of the articles to be sorted, and mounted for anti-frictional travel over all said elements, and means facilitating the delivery of a separate article into the space provided between any two elements, substantially as described.

5. The combination, with a sorting apparatus provided with a plurality of separator elements arranged in parallelism, and with means for separating any element from the adjacent element, of a carrier adapted to contain a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional movement into proximity to any of the elements, and means on the carrier facilitating the delivery of an article into any selected space between the elements.

6. The combination, with a sorting apparatus provided with a plurality of separator elements arranged in parallelism, and with means for separating any element from the adjacent element, of a carrier adapted to contain a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional movement longitudinally and laterally in proximity to said elements, and equipped with means facilitating the delivery of an article into any space provided between said elements.

7. The combination, with a sorting apparatus provided with a plurality of separator elements arranged in parallelism, and with means for separating any element from the adjacent element, of a carrier adapted to contain a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional movement over and into proximity to any of the elements, and means on the carrier facilitating the delivery of an article into any selected space between the elements.

8. A feeding device for sorting machines provided with a plurality of separator elements arranged in parallelism, and with means for moving each element to provide a space, comprising a carrier adapted to receive a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional travel over any space which may be provided by the machine, and equipped with means facilitating the delivery of an article into any selected space.

9. A feeding device for sorting machines provided with a plurality of separator elements arranged in parallelism, and with means for moving each element to provide a space, comprising a carrier adapted to receive a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional travel over any space which may be provided by the machine, and a feed chute depending from an end of said carrier and having its exit end in proximity to the top of said elements, substantially as described.

10. A feeding device for sorting machines provided with a plurality of separator elements arranged in parallelism, and with means for moving each element to provide a space, comprising a carrier adapted to receive a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional travel over any space which may be provided by the machine, and a vertically adjustable feed chute depending from an end of said carrier and having its exit end in proximity to the top of said elements, substantially as described.

11. A feeding device for sorting machines provided with a plurality of separator elements arranged in parallelism and with means for moving each element to provide a space, comprising a carrier adapted to receive a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional travel over any space which may be provided by the machine, and a downwardly tapering feed chute depending from an end of said carrier and having its exit end in proximity to the top of said elements substantially as described.

12. A feeding device for sorting machines provided with a plurality of separator elements arranged in parallelism, and with means for moving each element to provide a space, comprising a carrier adapted to receive a multiplicity of the articles to be sorted, said carrier being mounted for anti-frictional travel over any space which may be provided by the machine, and a vertically adjustable, downwardly-tapering feed chute depending from an end of said carrier and

having its exit end in proximity to the top of said elements, substantially as described.

13. A feeding device for sorting machines, provided with a plurality of separator elements arranged in parallelism, and with means for moving each element to provide a space, comprising a carrier having an open end and adapted to contain a multiplicity of articles, means constantly pressing said articles towards said open end, and a feed chute depending from the open end of the carrier and terminating in proximity to the top of said elements.

14. A carrier for paper-feeding devices, comprising a receptacle adapted to contain a plurality of papers in stacked relation, said receptacle being provided with an open delivery end, and a paper-retaining strip, carrying vertically extending projections on each side, positioned across the bottom portion of said open end, substantially as described.

15. A carrier for paper-feeding devices, comprising a receptacle adapted to contain a plurality of papers in stacked relation, said receptacle being provided with an open delivery end, and a paper-retaining strip positioned across the bottom portion of said open end, and a feed chute depending below said strip, substantially as described.

16. A carrier for paper-feeding devices, comprising a receptacle adapted to contain a plurality of papers in stacked relation, said receptacle being provided with an open delivery end, and a paper-retaining strip positioned across the bottom portion of said open end, and a feed chute depending below said strip, the front wall of said chute rising above said strip, substantially as described.

17. A carrier for paper-feeding devices, comprising a receptacle adapted to contain a plurality of papers in stacked relation, said receptacle being provided with an open delivery end, and a paper-retaining strip positioned across the bottom portion of said open end, and means constantly forcing said papers toward said strip, substantially as described.

18. Feed mechanism for sorting machines provided with a plurality of groups of separator elements arranged in parallel rows of groups, and with means for moving selected leaves in all the groups, comprising a carrier adapted to contain a multiplicity of the articles to be sorted, and mounted for travel longitudinally and laterally over each group, and means mounted in the path of travel of the carrier and adapted to stop the latter in centered position over each group.

19. Feed mechanism for sorting machines provided with a row of separator elements, and with means for moving each element to provide a space for an article, comprising a carriage adapted to be anti-frictionally moved over all of said elements, and a carrier adapted to contain a plurality of the articles being sorted, said carrier being mounted on said carriage and being equipped with means facilitating the delivery of a single article to any space provided between said elements.

20. Feed mechanism for sorting machines provided with a plurality of rows of separator elements, and with means for moving the elements to provide spaces therebetween for the articles being sorted, comprising a carriage mounted for antifrictional movement longitudinally over each row of elements, and a carrier adapted to contain a multiplicity of the articles being sorted, said carrier being mounted on said carriage and being adapted for movement laterally thereof, and equipped with means facilitating the delivery of a single article to any space provided between said elements.

21. Feed mechanism for sorting machines provided with a plurality of rows of separator elements, and with means for moving the elements to provide spaces therebetween for the articles being sorted, comprising a carriage mounted for antifrictional movement longitudinally over each row of elements, and a carrier adapted to contain a multiplicity of the articles being sorted, said carrier being mounted on said carriage and being adapted for movement laterally thereof, and equipped with means facilitating the delivery of a single article to any space provided between said elements, and means on said carriage mounted in the path of movement of said carriage and adapted to stop said carrier over the longitudinal center of said space.

In testimony whereof I affix my signature.

ALEXANDER M. BUNN.

by counsel for the parties. I make the following findings of fact and conclusions of law:

Findings of Fact

1. This is a suit filed December 14, 1945, under the United States patent laws for the infringement of the Turnham patent No. 2,242,408 granted May 20, 1941, upon an application filed October 28, 1938.

2. J. Weingarten, as assignee of the Turnham patent 2,242,408, in fact the only plaintiff in this case, is the owner of the Turnham patent and has owned it practically throughout the period since its issuance.

3. The plaintiff, J. Weingarten, is a citizen of the State of Texas and a resident of Houston, Texas, and operates a chain of some nineteen self-service grocery stores in the City of Houston and State of Texas.

4. The patent in suit is the Ellis D. Turnham patent 2,242,408 issued on May 20, 1941, emanating from an application filed October 28, 1938, and first assigned to Joe Weingarten.

5. The defendant, The Great Atlantic & Pacific Tea Company, is a corporation of New Jersey, an inhabitant of the State of Michigan within the Eastern District of Michigan within which date and district defendant has a regular and established place of business.

6. The Turnham patent relates to checking-out counters for self-service grocery stores as defined by the claims [fol. 578] in suit, namely, Claims 4, 5 and 6 of the Turnham patent.

7. Self-serve grocery stores were introduced in 1917 by Piggly-Wiggly. The customer went around the store, selected his wants, and carried them to a counter where the cashier checked the goods and collected money for the purchases.

By the late twenties, the waiting in line of customers at the counter to unload, check and re-load the purchases had begun to menace development of self-serve grocery stores.

8. Prior to the introduction of the Turnham invention in the Weingarten store in Houston, Texas in 1937, the

only solution offered to reduce the waiting time at the check-out counter took the form of the installation of additional counters with an attendant lessening of floor space and increase in personnel.

9. Up to the development of the Turnham invention, customer check-out counters were of L-shape with the cashier and cash register placed at the turn in the elbow of the L. Turnham proposed an extension to this counter upon which he supported and guided a three-sided bottomless tray open at one end and characterized by being self-unloading. The purchases of the customer next in line are placed within the framework of the tray upon the extension of the counter while the customer ahead is being checked out. Thereafter, the tray is pushed or pulled forward to a point adjacent the cashier and unloaded by the simple operation of being returned to the loading position on the counter extension.

10. The Turnham invention as originally installed in plaintiff Weingarten's store was modified by moving the handle on the tray from the back to a point adjacent to the cashier and a weight was attached to the tray so that it was automatically pulled back for the next customer. That the tray could be "grasped directly" to draw the [fol. 579] groceries in front of the cashier was contemplated in the Turnham patent.

11. Without the aid of sales promotion or advertising, the novelty and efficiency of the Turnham invention spread throughout the trade and its principles as defined by claims 4, 5 and 6 of the Turnham patent in suit were widely adopted by many chains operating self-serve stores or super markets and gained the approval of experts.

12. Defendant, The Great Atlantic & Pacific Tea Company, copied the Turnham invention in 1942 and by stipulation admits infringement of claims 4, 5 and 6.

13. The problem mitigated by the Turnham invention was of long standing. Defendant and others experimented with different devices intended to accomplish the results of the Turnham invention. None was entirely satisfactory and today practically every chain self-serve store organization in the United States uses the Turnham device first installed in the Weingarten stores.

14. Turnham's novel check-out counter was a valuable contribution to the efficiency of the self-serve type of merchandising. It increased the efficiency of each checking-out counter at least 30%. It is a great time, space and personnel saver.

15. Claims 4, 5 and 6 of the patent in suit define a new combination of elements brought together for the first time by Turnham to provide an improved check-out counter.

Three-sided bottomless racks or trays had been used in racking pool balls prior to the Turnham invention. Also checking-out counters were known. Moreover, guide rails for trays had been used in self-serve restaurants.

However, the conception of a counter with an extension to receive a bottomless self-unloading tray with which to push the contents of the tray in front of the cashier was a decidedly novel feature and constitutes a new and useful combination.

[fol. 580] 16. Although licenses under the Turnham patent have been generally offered to many users of the Turnham inventions since the filing of this suit, only a single license has been taken to date and that by a small chain shortly before the trial in 1947.

17. There is no similarity between the prior art patents cited by the Patent Office or the defendant and the invention disclosed in the Turnham patent.

18. No evidence was introduced establishing that anyone prior to Turnham used a three-sided bottomless tray in combination with a checking-out counter.

19. Ellis D. Turnham met the test of "invention" in 1937 when he made the new and novel combination as set forth in claims 4, 5 and 6 of the patent in suit.

20. Knowledge of the device disclosed in the patent in suit began to be circulated about the country soon after devices of a like nature were installed in the self-serve grocery stores owned by the plaintiff J. Weingarten in Houston, Texas. The defendant makes no claims to originality. The evidence introduced by the plaintiff supports the conclusion that defendant copied Turnham's invention either directly from devices being used in the Weingarten

stores in Houston, Texas, or from some competitor who had obtained a disclosure of the Turnham invention.

21. The complaint, as filed, did not limit the suit to claims 4, 5 and 6 of the Turnham patent, but during trial plaintiff, over the objection of defendant, elected to rely solely on claims 4, 5 and 6.

Conclusions of Law

1. This Court has jurisdiction of this case under the patent laws of the United States.

[fol. 581] 2. The plaintiff J. Weingarten has the right to recover for all infringements to claims 4, 5 and 6 of United States Letters Patents No. 2,242,408.

3. United States Letters Patent No. 2,242,408 granted May 20, 1941, to Elias D. Turnham for Merchandise Handler is good and valid in law as to claims 4, 5 and 6 thereof.

4. The defendant, the Great Atlantic & Pacific Tea Company, has infringed claims 4, 5 and 6 of said Letters Patent by the manufacture and use of Merchandise Handlers falling within the language of the said claims of the Turnham patent.

5. The plaintiffs are entitled to an injunction restraining the defendant, The Great Atlantic & Pacific Tea Company, its officers and agents, from further infringement of said Letters Patent and for damages as compensation for the use of the invention by reason of the infringement aforesaid from the date of notice of said infringement.

6. The plaintiffs are also entitled to recover their costs to be determined later by the Court.

7. Let the decree be entered accordingly.

Frank A. Picard, United States District Judge.

Dated: May 27, 1948.

[fol. 582] IN UNITED STATES DISTRICT COURT

INTERLOCUTORY JUDGMENT

[Same title]

This cause came on to be heard at the —— 1947, Term, was tried in open court on April 1 and 2, 1947, was reopened by Defendant for the presentation of additional evidence, and heard in open court on November 14, 1947; and thereupon, upon consideration thereof, it is ordered, adjudged and decreed as follows:

1. That United States Letters Patent No. 2,242,408 granted May 20, 1941 to Ellis D. Turnham for Merchandise Handler, is good and valid in law as to claims 4, 5 and 6 thereof.

2. That Plaintiff, J. Weingarten, is possessed of the full and entire right, title and interest in and to said Letters Patent, together with all rights of action for past infringement thereof.

3. That Defendant, The Great Atlantic and Pacific Tea Company, has infringed claims 4, 5 and 6 of said Letters Patent by using Merchandise Handlers which, by stipulation, fall within the claims.

4. The Plaintiffs, Evelyn B. Bradley and J. Weingarten, recover of the Defendant, The Great Atlantic & Pacific Tea Company, general damages as compensation for the use of the invention by reason of the infringement aforesaid.

5. That this cause be referred to —— ——, Esq., as Master to ascertain and take and report to the Court an account of said general damages.

6. That a perpetual injunction be issued out of and under the seal of this Court restraining the Defendant, The Great Atlantic and Pacific Tea Company, its officers and agents, and each of them from directly or indirectly making, using or selling, or causing to be made, used, or sold, [fol. 583] any merchandise handlers embodying the invention claimed in claims 4, 5 and 6 of said Letters Patent No. 2,242,408, and from in any way infringing upon any of said claims of said Letters Patent or upon the rights of the Plaintiffs under said claims.

7. That the usual costs be awarded to Evelyn B. Bradley and J. Weingarten, Plaintiffs herein, with respect to the original trial of this matter.

Frank L. Picard, United States District Judge.

Approved as to Form:

——— ———, Attorneys for Defendant. ——— ———, Attorneys for Plaintiffs.

[fol. 584] In United States District Court

Notice of Appeal—Dated May 18, 1948

[Same title]

Notice is hereby given that The Great Atlantic and Pacific Tea Company, Defendant above named, appeals to the Circuit Court of Appeals for the Sixth Circuit, from the Judgment entered in this action on May 18, 1948 adjudging that claims 4, 5 and 6 of United States Letters Patent No. 2,242,408 are valid and infringed by said Defendant, and ordering an accounting and assessment of damages.

E. J. Balluff, Attorney for Defendant, 2755 Penobscot Bldg., Detroit, Michigan.

Munn, Liddy & Glaccum, John H. Glaccum, Of Counsel, 24 W. 40th Street, New York 18, N. Y.

[fol. 585] In United States District Court

[Title omitted]

Designation of Contents of Record

The attached Designation is hereby consented to and the undersigned hereby waives the rights of Plaintiffs-Appellees to serve and file a Designation of additional portions of the record, proceedings and evidence to be included.

Dated September 30, 1948.

Beaman & Patch, 501 Reynolds Building, Jackson, Michigan, Attorneys for Plaintiffs-Appellees.

[fol. 586] IN UNITED STATES DISTRICT COURT

[Title omitted]

SIRS:

Please take notice that the Defendant-Appellant above named hereby designates the following portions of the record, proceedings and evidence to be contained in the Record on Appeal:

1. Caption
2. Complaint
3. Answer
4. Transcript of the testimony and all of the proceedings before Judge Picard April 1st and 2nd, and November 14, 1947.

Depositions of James A. Davenport, Leonard Milgram, Thomas E. Seefield, Hartley E. Jackson and Lawrence Drake.

The affidavit of Mr. Lawrence Drake in support of Defendant's motion to re-open.

5. The opinion of Picard, D. J.

[fol. 587] 6. The Findings of Fact and Conclusions of Law.

7. Interlocutory Judgment
8. Notice of Appeal dated May 18, 1948
9. Clerk's Certificate

The Record shall contain the following printed exhibits:

All of Plaintiffs' Exhibits numbered 1 to 26, with the exception of 13 and 16, which shall be submitted to the Court as physical exhibits and 6 and 7, which were withdrawn by Plaintiff on the trial, and shall be printed.

All of Defendant's Exhibits A to G except A and B, which are physical exhibits and which will be submitted to the Court as such.

Yours, etc. Edwin J. Balluff, 2755 Penobscot Building, Detroit 26, Michigan.

Munn, Liddy & Glaccum, By John H. Glaccum, 24 West 40th Street, New York 18, N.Y.

To: Beaman & Patch, Reynolds Building, Jackson, Michigan.

[fol. 588] In United States Court of Appeals for the Sixth Circuit

[Title omitted]

Before: Hicks, Martin and Miller, JJ.

Order Extending Time to File Record—Filed October 15, 1948

It is ordered that the motion of appellees to docket and dismiss the appeal be and the same is denied.

It is further ordered that the motion of appellant to extend the time to docket the appeal be and the same is granted, and the time to file record and docket appeal is hereby extended sixty (60) days from this date.

Approved for entry:

(s.) Xen Hicks, Circuit Judge.

[fol. 589] In United States District Court

[Title omitted]

Stipulation re Certification of Record

Defendant, having filed a notice of appeal herein, and a stipulation designating the record with respect to such appeal, it is hereby agreed that the record as presented to the clerk by the printer may be certified by the clerk as required by law and the rules of the Appellate Court as a true, full and complete copy of the original pleadings, papers and orders used on the trial of this cause as set forth in the designation for transcript without further comparison by the clerk.

Dated: December —, 1948.

Edwin J. Balluff, Attorney for Defendant-Appellant.
Beaman & Patch, Attorneys for Plaintiffs-Appellees.

[fol. 590] Clerk's Certificate to foregoing transcript omitted in printing.

[fol. 591] PROCEEDINGS IN THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

[fol. 592] ORDER OF SUBSTITUTION—Filed February 15, 1949

Pursuant to motion of Plaintiff-Appellee, it is ordered that the Supermarket Equipment Corporation be and they are designated as Plaintiff-Appellee for and in place of Evelyn B. Bradley and J. Weingarten.

CAUSE ARGUED AND SUBMITTED—October 19, 1949

(Before: Allen, Martin and Miller, JJ.)

This cause is argued by John H. Glaccum for appellant and by Townsend F. Beaman for appellee and is submitted to the Court.

[fol. 593] JUDGMENT—Entered January 17, 1950

Appeal from the District Court of the United States for the Eastern District of Michigan.

This cause came on to be heard on the transcript of the record from the District Court of the United States for the Eastern District of Michigan, and was argued by counsel.

On Consideration Whereof, It is now here ordered and adjudged by this Court that the judgment of the said District Court in this cause be and the same is hereby affirmed.

OPINION—Filed January 17, 1950

[fol. 594] [Stamp:] Filed Jan. 17, 1950. John W. Menzies, Clerk.

UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

No. 10835

THE GREAT ATLANTIC & PACIFIC TEA COMPANY, Appellant,

v.

EVELYN B. BRADLEY and JOE WEINGARTEN, Appellees

Appeal from the United States District Court for the Eastern District of Michigan, Southern Division

Decided January 17, 1950

Before Allen, Martin and Miller, Circuit Judges

ALLEN, Circuit Judge:

This appeal arises out of a judgment of the District Court finding three claims of Turnham patent 2,242,408, issued May 20, 1941, on an application filed October 28, 1938, valid and infringed. Appellee Weingarten is assignee of the patent in which appellee Bradley owns a nominal interest.

At the trial it was stipulated that Claims 4, 5 and 6, if valid, were infringed by appellant's structure. Appellees then withdrew Claims 1, 2 and 3, and hence Claims 4, 5 and 6, printed in the margin, are in issue.[1]

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[1] 4. A checker's stand including a counter of the character described, an open bottom pusher frame thereon, means to guide said frame in sliding movement so that goods placed on the end of said counter within said frame may be pushed along the counter in a group to a position adjacent the checker by movement of said frame.

5. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless three sided frame on said portion and within which the merchandise is deposited and ar-

[fol. 595] The Turnham patent covers a merchandise handler, designed to expedite the passage of customers through checking-out counters in self-serve stores. The problem sought to be solved arose out of the institution of self-serve grocery stores, the first of which was the Piggly-Wiggly, established about 1917. The problem has been increased by the opening of the so-called super markets around 1937, which for the purpose of this case are large self-serve stores handling a great volume of business. As described in the patent specifications and in the evidence in self-serve grocery stores the customer deposited purchases in a basket and placed the basket by the cash register on the checking counter. This was an L-shaped table, with the register mounted upon the L or wing. The checker took the groceries out of the basket, sorted them, added up the amounts, and received payment. In 1937 at appellees' Weingarten stores in Houston, Texas, the problem which had existed for several years was intensified, particularly during rush hours, when a number of persons approached the checking counter at the same time. The irritation of the customers at having to wait in line, combined with the difficulty of handling the customers, created a situation which was a real menace to the development of the self-serve store. Turnham, an employee of

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ranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier.

6. A cashier's counter for cash and carry type of grocery comprising a portion spaced from the cashier's stand and upon which the merchandise may be deposited and arranged, a bottomless frame on said portion and within which the merchandise is deposited and arranged, means whereby said frame is movable on said counter from said portion to a position adjacent the cashier's stand so that the merchandise may thus be moved as a group to a point where it may be conveniently observed, counted and registered by the cashier, said frame being open at the end adjacent the cashier's stand and readily movable to be returned over said portion so as to receive the merchandise of another customer while the cashier is occupied with the previous group.

Weingarten, who was assigned the task of solving the problem, invented the device which is the subject of controversy. He put an extension on the checking counter and to this extension he attached a guide structure. He used with the guide structure a three-sided bottomless frame or rack, to be slid back and forth upon the counter. The customer placed groceries in the frame, and a "pusher boy" pushed the frame forward to the checker. The frame was then pushed back to the point where the next customer was waiting, and his groceries in turn were put into the frame and pushed forward. Later, customers became educated to put their packages into the frame and push them forward themselves. A marked advantage of this system is that while the checker is waiting on one customer, the next in line has an opportunity to load packages into the frame and thus expedite the service. Under tests which are not controverted in this record it was shown that the stores which use this device have handled 30% more customers, taken in 30% more money than formerly, and thus greatly improved their efficiency.

While the problem arises in marked form in the super markets and is, as one of appellant's witnesses said, one of their biggest problems, it existed as soon as self-serve stores with checking counters were opened in 1917. [fol. 596] Whenever more than two persons are at the checking counter, the difficulty exists. The congestion is conceded to have been a problem always on Saturdays and at rush hours. Prior to Turnham, in spite of repeated attempts, the only solution was the addition of checking counters. This in turn meant the use of very valuable space near the front of the store, building of additional counters, hiring of additional help, which was particularly difficult during the man-power shortage of the war years, and the purchase of additional cash registers. Since 1939 devices similar to Turnham have been put into self-serve markets established by the leading grocery chains and in 1942 appellant installed them in various stores.

The District Court found:

> "15. Claims 4, 5 and 6 of the patent in suit define a new combination of elements brought together for the first time by Turnham to provide an improved check-out counter.

"Three-sided bottomless racks or trays had been used in racking pool balls prior to the Turnham invention. Also checking-out counters were known. Moreover, guide rails for trays had been used in self-serve restaurants.

"However, the conception of a counter with an extension to receive a bottomless self-unloading tray with which to push the contents of the tray in front of the cashier was a decidedly novel feature and constitutes a new and useful combination."

"17. There is no similarity between the prior art patents cited by the Patent Office or the defendant and the invention disclosed in the Turnham patent."

"18. No evidence was introduced establishing that anyone prior to Turnham used a three-sided bottomless tray in combination with a checking-out counter."

Appellant's witnesses conceded the utility of the Turnham patent, one of them stating that it is obvious that this pusher has improved the efficiency and speed of taking care of the lines of customers. Appellant, however, while conceding infringement, contends that the conception of Turnham involved mere mechanical skill and does not rise to the dignity of invention.

We think the judgment of the District Court must be affirmed. The finding that this new and useful combination resulted from the exercise of the inventive faculty is a finding of fact [*Faulkner* v. *Gibbs*, 170 Fed. (2d) 34 [fol. 597] (C. A. 9), affirmed by the Supreme Court, November 7, 1949; *Williams Mfg. Co.* v. *United Shoe Machinery Corp.*, 316 U. S. 364, 367], is sustained by substantial evidence, and should not be set aside unless clearly erroneous. *General Metals Powder Co.* v. *S. K. Wellman Co.*, 157 Fed. (2d) 505, 509 (C. A. 6). While appellant contends that Turnham settled no long-standing problem because there was no acute bottleneck at the checking counters until 1937, this contention is answered by the testimony not only of appellees', but of its own witnesses. It appears by the overwhelming weight of the evidence that at rush hours and on rush days, such as Saturday, the problem appeared as soon as self-service in grocery stores was instituted. The device satisfied an old and recognized want, and hence "invention is to be inferred, rather than the exercise of mechanical skill. For mere skill of the art

would normally have been called into action by the generally known want." *Paramount Corp.* v. *Tri-Ergon Corp.*, 294 U. S. 464, 474; *Goodyear Tire & Rubber Co.* v. *Ray-O-Vac Co.*, 321 U. S. 275. One could be blinded in this case by the simplicity of the device, and might conclude that it does not present the degree of higher intelligence held by the courts necessary to constitute invention. But here a long-existing problem, born with the birth of the self-serve store in 1917 and continually troubling store managements, was never solved until 1937, when Turnham placed his combination in Weingarten's Houston store. Three witnesses testified to the existence of the problem from the beginning of self-service and to the efforts constantly made to solve it. Appellant at once recognized the problem when it opened its self-serve stores in the Midwest. Employees of the Kroger Company from 1939 on worked with numerous devices, such as a conveyor belt which proved impractical, and a counter dolly or wheeled rack which was devised to carry the packages to the cashier. But it was not feasible to get rid of this rack and return it to the customer. About 1941 Kroger adopted the three-sided bottomless tray, which up to this time leads in efficiency of merchandise handling, for with a mere push it is returned to the next customer waiting in line, and the process goes on. The Milgram stores, which established self-service in Kansas City in 1932, found the problem acute at that time. In 1939 Milgram set up a number of counter devices which had extensions and guard rails upon which customers slid their baskets in front of the cashier and then lifted them up on the counter for unloading and counting. The combination disclosed here, which under this record no one conceived of before [fol. 598] Turnham, eliminated the lifting of heavy baskets and reduced other difficulties inherent in the congested lines leading to the checking counters. Since 1939 practically every major self-serve store in the United States has adopted the Turnham system. It is true that the extended counter was old and the guide rails had no novelty. A bottomless rack had been used to retain billiard balls in formation. But the use of all these elements in the combination disclosed by Turnham was new and produced a new and highly beneficial result. While no sales of the device were made and the first license issued

was subsequent to the date of the filing of this action, the industry paid its tribute to the importance of Turnham by virtually unanimous adoption. Cf. *Forestek Plating & Mfg. Co.* v. *Knapp-Monarch Co.*, 106 Fed. (2d) 554, 558 (C. A. 6); *Goodwin* v. *Borg-Warner Corp.*, 157 Fed. (2d) 267 (C. A. 6). This was in the face of the fact that no sales or extensive advertising campaign was undertaken by the appellees.

Seventeen patents which had not been cited by the Patent Office during the prosecution of the Turnham application were introduced as evidence of anticipation of the Turnham device. It is not necessary to discuss these in detail. For the most part they are in totally non-analogous art. Marois, 1,654,692, is a flat slab movable back and forth under a screen protecting a cashier's window. Varnum, 1,725,494, and Dickinson, 1,115,911, are patents for pool ball racks. The racks in question are closed and are not self-unloading as is the U-shaped rack. Neither Arnold, 1,708,407, Rorrer, 1,873,852, nor Greenberg, 1,384,191, has the bottomless rack. Anderson, 1,788,759, is an ordinary belt type of conveyor. As shown in this record, no patent in the prior art attacked the bottleneck presented at the checkout counter in the self-serve store. Appellant concedes that no prior use of the bottomless rack in such a combination is shown. We conclude that substantial evidence supports the findings of the District Court that novelty and invention exist.

Claims 4, 5 and 6 describe the Turnham device in terms of its essential physical structure. The rule announced in *Haliburton Oil Well Cementing Co.* v. *Walker*, 329 U. S. 1, does not invalidate these claims. Cf. *Excel Auto Radiator Co.* v. *Bishop & Babcock Mfg. Co.*, 167 Fed. (2d) 962, 966 (C. A. 6); *Faulkner* v. *Gibbs*, *supra*. Claims 4, 5 and 6 are valid.

The District Court did not err in refusing to pass upon the validity of Claims 1, 2 and 3. It was discretionary with the court whether it should permit the appellees to withdraw these claims and treat their action as an amend-
[fol. 599] ment to the pleadings. *Ford Motor Co.* v. *Gordon Form Lathe Co.*, 90 Fed. (2d) 999 (C. A. 6). Since the District Court did not err in permitting the withdrawal of these claims it also did not err in allowing the costs to the appellees. Claims 1, 2 and 3 not having been found

Innovations
Speed Traffic

1 Check stands at a new Hinky-Dinky supermarket, Omaha, have chromium basket slides to receive the most-used top baskets directly from the gliders.

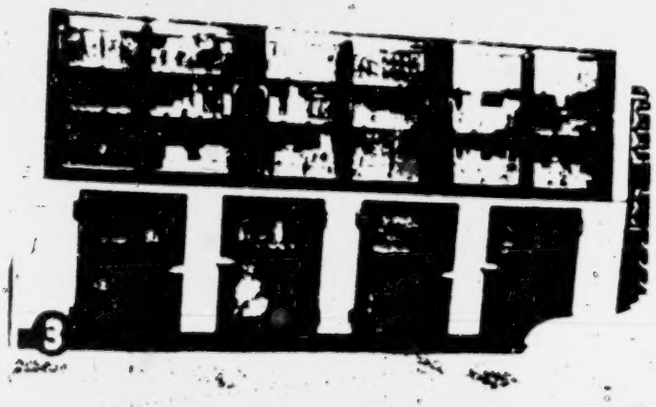
2 Close-up of one check stand shows special trash dispenser. Waste goes into large galvanized metal box.

3 With its own fluorescent illumination, white enamel cooler display case attracts customers. Upper doors slide easily.

4 No, that's not a double tier of fresh vegetables. It's done with mirrors, set behind and above the steel, rust-proof bins to display all the vegetables.

5 Fluorescent lights are flush with the ceiling. Two central skylight wells utilize natural daylight. Pyramided all-steel shelving tilts back slightly to display goods to maximym advantage. Extra wide aisles, floored with rubber tile, avoid congestion.

6 The new Hinky-Dinky supermarket in Omaha, located at Sixteenth and Locust streets, is topped by a spectacular orange neon lighted tower. A spacious concrete parking lot adjoins the building.



562=563

[fol. 564] IN UNITED STATES DISTRICT COURT

OPINION OF JUDGE PICARD, DATED APRIL 30, 1948

[Same title]

The main issue in this case is whether the Patent Office should have granted letters on the device involved, since it has been stipulated that if plaintiff has a patentable invention defendant has infringed on claims 4, 5 and 6.

There is in fact but one plaintiff, Weingarten, assignee of Turnham's patent No. 2,242,408, who operates a chain of grocery stores in the State of Texas and was a pioneer in what we know today as the self-serve store—fore-runner of the super-market.

History of the development of this species of business enterprise is desirable. One Saunders, back in 1917, started the first Piggly-Wiggly, a self-serve grocery in which the customer went around the store selecting what he wanted, put it into a cart or basket and proceeded to a counter where the cashier checked the goods, collecting money for the purchases. Plaintiff was an early disciple and the idea of having the customer's help made a favorable impression with many in the business. Among its most desirable features was that it produced a situation where the patron did the work of lifting his own groceries, light and heavy, from the moment of purchase to his departure.

Up to 1937 customers checking out of a self-serve grocery were routed through an aisle on one side of which was an L. shaped counter with the cashier and cash register placed at the turn in the elbow of the L. The customer was obliged to take his purchases out of the cart or basket in front of the cashier, have them checked over, pay, place them back in some kind of a receptacle, perhaps a paper bag, and depart. The next person in line had to wait while the unloading, checking and reloading process was taken care of and in the late twenties and thirties this situation had begun to menace development of self-serve grocery stores—[fol. 565] a hurdle then being jumped only by installation of additional checking out counters with the attendant lessening of floor space and increase in personnel.

It is plaintiff's claim that from the inauguration of self-serves the moment two customers stood in line ready to

check out there was need for some method of minimizing the second person's wait. But whether this was true or not, surely by 1937 there was an overwhelming demand for some system that would make it unnecessary for customers to stand in line at the checking out station for long periods; and there was need for allegation of discomforts and annoyances—including the mixing of merchandise—as one patron followed closely upon the heels of another in an impatient desire to be on his way home. Of course it can be easily accepted that the merchant who got his customers out as soon as they were ready to get out would have an added attraction why he should be patronized. And it was most important to the grocer that his facilities make possible a large volume because of the small margin of profit on which he must rely.

Naturally plaintiff was more aware of this drawback than defendant which was just beginning to install the self-serve type of store. So various ideas to meet the difficulty were advanced, none of which solved the problem, until in 1937 Turnham, one of Weingarten's employees and through whom plaintiff claims, conceived the idea of extending the counter beyond the L. Here he placed a three-sided pusher or tray which used the top of the counter for a bottom and was prevented from slipping off by guide rails on each side. The sides of the bottomless tray extended above the guide rails permitting the cashier to "pull" the groceries up before her, then push the tray or pusher back on the counter so the next customer could be arranging his groceries within the tray while the person in front was checking out. This is the device upon which plaintiff's assignor received a patent. Later a handle was added to [fol. 566] the side of the pusher nearest the checker to eliminate excessive physical effort and still later a weight was attached to the tray so that it was automatically pulled back into position for the next customer. These two improvements were not in the design of the patent as submitted but the part describing the method of utilization in the original does state that the pusher "frame may be grasped directly" (Patent—Page 2, Col. 1, line 35) to draw the groceries in front of the cashier.

Defendant contends that the Turnham method of speeding up "checking out" was the natural growth of the system; that there had been no real need for such accelera-

tion before 1937; that similar devices had been used before; and that all skilled in the art saw the solution when the need actually became apparent as evidenced by the fact that practically all self-serve grocery stores put them in at the same time although their owners had never heard of or seen the Turnham combination.

We do not believe the facts justify defendant's position. First—hindsight is usually better than foresight. Any new invention is perplexing to one having need for its development only because he wonders why he or somebody else didn't think of it before. And second—today we are far removed from the delay or time consumed when it was necessary to telegraph information from one part of the country to the other by Indian runners, drums or smoke signals. With our modern method of relaying news it certainly wouldn't have taken very long before the novelty and efficiency of the Turnham pusher spread like wildfire throughout the trade. Add to this the fact that self-serve stores were springing up all over the country and the evidence shows conclusively that many, including defendant's representatives were familiar with what was going on in the Weingarten stores. In fact, there is substantial evidence that such information was carried by means of photographs, magazine articles, talks and even by a cash register salesman.

[fol. 567] So we need no stretch of reasoning to conclude that practically from the date of its entrance into the self-serve grocery field word had reached defendant that the Weingarten chain had in operation the then best answer to the "waiting in line" problem. Defendant makes no pretense of having worked out the system itself. It insists that the pusher system was a natural development; that like "Topsy" it just grew. But defendant and others had experimented or then began experimenting on their own and one ingenious device was a large wheel-shaped receptacle, divided into two parts, laid flat near the cashier, making it possible to check out one customer on one side of the wheel while another was unloading groceries on the other side in preparation for checking. Then there was the endless belt conveyor, the counter cart, and the use of two pieces of wood by the cashier to separate one customer's groceries from the customer's following. None was entirely satisfactory and today, practically every chain

self-serve store organization in the country uses the device first installed in plaintiff's stores. It must be admitted, then, that Turnham made a valuable contribution to the efficiency of the self-serve store type of merchandising.

Conclusions of Law

The case law dealing with patents has laid down certain cardinal principles recognized by those who have specialized in this practice.

First, a patent, having been granted by the Patent Office, carries a presumption that it is valid and the burden of proof to upset that presumption rests upon the person advocating invalidity. And it is not a presumption that may be destroyed easily, for example by such evidence recognized as sufficient in a civil case. In fact, the courts have consistently held that the presumption of validity is so great that it may be removed only by evidence that rises to the dignity of "perhaps beyond a reasonable doubt." [fol. 568] Here the stipulation admitted infringement by defendant of claims 4, 5 and 6 is in the record, so we are not concerned with that question, but if defendant is unsuccessful in overcoming the presumption of validity, plaintiff must prevail. That is defendant's burden in the case at bar. The rule of our own circuit is found in *W-R Co. v. Sova*, 106 F. 2d 378 (cert. denied 309 U. S. 663) where the Court said:

> "The presumptive validity of a patent is so weighty that the defense of invention by another must be established by the clearest proof, perhaps beyond a reasonable doubt and a fortiori the same rule applies to the defense of prior public use or sale by the inventor."

Also see Walker on Patents, Sec. 116 (Deller Ed.) Sec. 63 page 300 and decisions cited.

Mumm v. Decker & Sons, 301 U. S. 168.
Westinghouse Co. v. Formica Co., 266 U. S. 342.
Forestek Plating & Mfg. Co. v. Knapp-Monarch Co., 106 F. 2d 554.
Allison Coupon Co. v. Bank of Commerce & Savings, 111 F. 2d 664.
Dodge v. Post, 76 Fed. 807.
Motor Improvements v. General Motors Corporation, 49 F. 2d 543.

What then are the earmarks of an invention?

To begin with the device must present novel features, which may be as stated in *National Hollow B. B. Co. v. Interchangeable B. B. Co.*, 106 Fed. 693.

> "* * * a new combination of old elements, whereby a new and useful result is produced, or an old result is attained in a more facile, economical, and efficient way * * *."

The bottomless tray is not novel, as note for example, the well known pool rack. Neither is a checking-out counter [fol. 569] nor the use of guide rails. These have been seen in self-serve restaurants for years. However, the extension to the checking-out counter was apparently something new, as it automatically placed the register farther up on the checking-out aisle, and the use of the bottomless tray on that extension, self-unloading its contents right in front of the cashier, was decidedly a novel feature. Other than new solution inventions, very few patent devices are composed of new elements. But here we have the combination of the bottomless tray on the extension counter, easily moved into position before the cashier by drawing it to her between guide rails. This makes it unnecessary for the housewife to push her purchases forward, for a pusher boy to help her, or for the cashier to reach out and by use of her arm exert the necessary force to draw the purchases to her. Then follows the effortless return of the pusher tray for use by the next customer, while customer No. 1 is being checked out. No one who has ever traded at one of these self-serve stores can deny that even today with this device, plus added cashiers and counters, this checking out problem is still a bugaboo of the business because of the annoyance of waiting to the ever present impatient customer; yet it was buffeted from pillar to post without any solution until plaintiff's invention.

The Turnham system was not only novel but a great time, space and personnel saver.

Was it useful?

It was so useful that after seeking other ways to accomplish the same thing practically all self-serve stores, including defendant's, have copied and now use it. If a device is novel and useful that is strong evidence of its patent-

ability. *Forestek Plating & Mfg. Co. v. Knapp-Monarch Co., supra.*

Did this device meet with commercial success? This is important since

> "commercial success of a patented device and the absence of the other competing devices is strong evidence [fol. 570] of utility and patentability." Walker on Patents, Vol. 1, Sec. 71, page 322 (Deller Ed.) with citations.

Challenging such success defendant emphasizes the fact that plaintiff has succeeded in getting only one line of stores to become licensed. We do not believe that commercial success is gauged by the number of concerns willing to pay whatever cost is necessary for the privilege of using a new invention. There may have been an honest difference of opinion right from the start as to whether this pusher was patentable and the information that this defendant or others were going to make this point an issue in the courts might have deterred others. What we Americans often refer to as "the grapevine" might have been in operation and a "wait and see" policy adopted. If commercial success depends upon the number of licenses sold, this patent does not meet the test, but to so hold would invite conspiracy against all future inventors who may find their invention being used by everybody and no one paying the justified tribute. We believe that commercial success simply means "much use in the trade."

In the case at bar the device is useful, it is novel, it is in our opinion a commercial success because the great majority of other self-serves are using it and the evidence is most convincing that nobody thought of the solution before Turnham did; all of which is evidence of its patentability. Furthermore, it admittedly gained the approval of experts in the trade without extensive advertising or intensive selling pressure.

Forestek Plating & Mfg. Co. v. Knapp-Monarch Co., supra.
Goodyear Co. v. Ray-O-Vac Co., 321 U. S. 275.
Crampton Mfg. Co. v. Crampton, 153 F. 2d 543.
Goodwin v. Borg-Warner Corporation, 157 F. 2d 267.
Campbell v. Mueller, 159 F. 2d 803.
Williams Co. v. Shoe Mach. Corp., 316 U. S. 364.

[fol. 571] And this Court recognizes that this is a simple, inexpensive device that would pale into insignificance before a Diesel engine or radar machine. But the fact that it is simple and inexpensive doesn't detract from, but rather adds to, the presumption of patentability.

> "Cheapness of construction simplicity of construction, and operation and ease of operation, as compared with prior structure are all indications of invention." Walker on Patents, Vol. 1, Sec. 30 (Deller's Ed.) page 189 and citations.
>
> See also *Hughes Tool Co. v. International Supply Co.*, 47 F. 2d 490; *Skinner Bros. Belting Co. v. Oil Well Improvements Co.*, 54 F. 2d 896.

Still these enumerated characteristics of themselves are not enough. The affirmative meeting of these tests is persuasive but not conclusive and its commercial success can be of help to the article's patentability only in close cases. On the other hand, commercial success alone, "should in a close case, tip the scales in favor of patentability." *Crampton Mfg. Co. v. Crampton* (*supra*).

> *Cleveland Trust Co. v. Schriber-Schroth Co.*, 92 F. 2d 330.
> *Goodyear Co. v. Ray-O-Vac Co.* (*supra*).
> *Goodwin v. Borg-Warner Corporation* (*supra*).
> *Campbell v. Mueller* (*supra*).

So we approach the next question, to wit, whether or not the patented article rises to the dignity of invention. Is there the "flash of creative genius" (*Cuno Corp. v. Automatic Devices Corp.*, 314 U. S. 85) to be found in this contrivance, or would one skilled in the art have naturally come forth with the same kind of a mechanism?

In the *Cuno* case the Court said:

> "That is to say, the new device, however useful it may be, must reveal the flash of creative genius, not merely the skill of the calling. If it fails, it has not [fol. 572] established its right to a private grant on the public domain."

We believe that *Goodyear Co. v. Ray-O-Vac Co.* (*supra*) is the best answer to the extent our Courts will go to protect

the brain child of an inventor and gives some light on what creative genius may be. For years the dry cell battery had been placed on the market by manufacturers knowing its defect of leakage. Then the patentee simply encased the battery in a leak-proof container. That's all there was to it. Why somebody hadn't thought of this before was an enigma, not only to the uninitiated but to those who were skilled in the art and knew something about batteries, their manufacture, their use and their defects. The patent was held valid, the District Court quoting the Supreme Court's decision in *Paramount Corp. v. Tri-Ergon Corp.*, 294 U. S. 464 at page 474, to wit:

> "Where the method or device satisfies an old and recognized want, invention is to be inferred, rather than the exercise of mechanical skill. For mere skill of the art would normally have been called into action by the generally known want."

Ray-O-Vac v. Goodyear Tire & Rubber Co., 45 F. Supp. 927, affirmed in 136 F. 2d 159 and by the Supreme Court in 321 U. S. 275.

In the case at bar the witnesses who are in a position to know, who helped formulate, develop and popularize the self-serve grocery stores, testify that the problem in 1937 has been in existence for twenty years. Perhaps this is an exaggeration but there is no doubt that during the late twenties and throughout the thirties, particularly on the housewife's main shopping day, Saturday, the future success of this type of merchandising hung in the balance. This threat loomed as an approaching overwhelming flood in anticipation of the return of prosperity to this country. By 1937 the situation bordered on the chaotic; the cactus had [fol. 573] bloomed into a formidable piece of vegetation in the path of the self-serve store progress. What Turnham's invention did to partially trample this weed underfoot has been heretofore stated, and to those advantages must be added the fact that it increased the efficiency of each checking counter at least thirty per cent. What more evidence of the "flash of creative genius" could be required?

Halliburton Co. v. *Walker*, 329 U. S. 1, relied upon by defendant, is not a challenge as we interpret that case. The plaintiff does use the word "means" in its patent claims but we do not understand the *Halliburton* case to

infer that from that date on the use of that particular word is taboo in all patent claims. Many patents in the past and certainly many since the date of the *Halliburton* decision have referred to the "means" by which the patented article is supposed to function. We think that the objection of the Supreme Court to the legality of the patent in the *Halliburton* case was chiefly because not one of the claims rested or even suggested the physical structure of the acoustical resonator. Furthermore, it said:

> "• • • the broadness, ambiguity, and overhanging threat of the function claim of Walker become apparent,"

and that if the patent was valid it barred anyone from using an oil well device heretofore or hereafter invented which clearly and distinctly caught and recorded echoes from tubing joints with regularity. Turnham's claims are specific. The essential structures, the extension and the bottomless self-unloading frame, are described as such and functional language is not being used "at the exact point of novelty." *Halliburton, supra.* Anyone else who can invent a better way of securing similar or even superior results is not barred and just how Turnham's device functions is not ambiguous but is clearly recited. That, in our opinion, is the difference between the two cases.

[fol. 574] There remains then but one other major question.

What does the prior art show? We have examined the contentions presented and fortunately for plaintiff, according to the file wrapper, the Patent Office examined the prior art before the patent was granted—perhaps not all those submitted by defendant but those apparently believed by it to be nearest to the patent being applied for. Of course, when one seeks letters from the Patent Office there is no adversary to be met or controversial proof submitted. There is no third party opposing the application and the fact that such a petition is being heard is probably not even known to those on the outside who may be affected. Still the examiner is supposed to make inquiry and search diligently to learn whether the new application may be anticipated by patents heretofore granted. During the trial of this case and after ex-

amining all previous patents deemed as being at all similar to the patent before use—including the many advanced by defendant—we indicated that we could see no similarity between any of those patents and the one at bar. We are still of this opinion. True, any three sided bottomless tray might have been used. Even the pool rack with the handle. But as stated in *Carnegie Steel Co.* v. *Cambria Iron Co.*, 185 U. S. 403, page 422:

> "It is not sufficient to show a piece of mechanism by which the process might have been performed."

Evidently the Patent Office reached the same conclusion and the significance of its determination of patentability has the sanction of many courts, including again our own sixth circuit. In *Williams Co.* v. *Shoe Mach. Corp.*, 121 F. 2d 273 at page 277 we read

> "To the presumption of validity that attaches to a granted patent, where the most pertinent prior art has been cited against it in the patent office, there must probably now be added the force of a growing recognition of finality that is generally being accorded to ad- [fol. 575] ministrative determinations supported by evidence, on the ground that the administrative agency is expected to have developed an expertness in its specific field beyond what may be expected from the courts wherein adjudications range the whole field of human controversies."

See also *Detroit Motor Appliance Co. v. Burke*, 4 F. 2d 118; *Gairing Tool Co. v. Eclipse Interchangeable Counterbore Co.*, 48 F. 2d 73; *Adler Sign Letter Co. v. Wagner Sign Service*, 112 F. 2d 264.

By the overwhelming weight of authority it is apparent to this Court that a patent granted by our Patent Office especially after a review of the prior art by men who are supposedly experts in their field, should not be lightly disturbed. Certainly it should not be nullified by one who in uncertain, wavering testimony claims he saw the same device in use some thirty years ago when he was a boy of ten or twelve years of age.

> "A fair doubt as to its reliability is always sufficient to dispose of testimony of this character."

Mack v. Spencer Optical Manuf'g Co., 52 Fed. 819.

See also *Buckeye Incubator Co. v. Wolf*, 291 Fed. 253 and cases cited.

To this we add that if the presumption of validity is of such gossamer fabric as to be destroyed by verbal testimony of one lone witness unsupported by written or printed matter, then there is no presumption worthy of the name. The infringer "bears a heavy burden of persuasion."

Williams Mfg. Co. v. United Shoe Mach. Corporation (supra).

Drake's testimony was of no value and certainly defendant having admitted infringement has not satisfied the necessary requirement of the weight of the evidence to overcome the presumption of such validity. And while [fol. 576] this alone would be sufficient, in addition, we believe that plaintiff's invention on its own merits meets the several tests of patentability as we have attempted to outline herein.

Finally, and although we deem the point immaterial, this Court holds that plaintiff has not forsaken claims 1, 2 and 3. We follow, on the contrary, the reasoning of *Ford Motor Co. v. Gordon Form Lathe Co.*, 90 F. 2d 999, to the effect that having chosen to rely upon claims 4, 5 and 6 this serves only as an amendment to the pleadings.

For the reasons given herein it is our conviction that plaintiff must prevail.

(Sgd.) Frank A. Picard, United States District Judge.

Dated: April 30, 1948.

[fol. 577] IN UNITED STATES DISTRICT COURT

FINDINGS OF FACT AND CONCLUSIONS OF LAW

[Same title]

This cause came on and was tried before me on the 1st and 2nd of April, 1947, and was reopened for presentation of evidence on November 14, 1947.

I have heard proof offered and the argument made

invalid, appellees were under no duty to disclaim them, and R. S. § 4922, 35 U. S. C., § 71, does not apply.

The judgment is affirmed.

MARTIN, Circuit Judge, dissenting:

I am unable to find invention in the patent claims in suit. It seems to me that the combination of the admittedly old elements as described in the claims does not rise to the dignity of invention, and that the findings of fact of the district court are clearly erroneous. Quite apparently Turnham derived the idea underlying his patent from a different field by utilizing a commonly known and long existent art, that of racking pool balls upon a pool table. In effect, he merely opened up the apex of an ordinary pool ball rack so that the legs of the triangle became parallel to each other and perpendicular to the base. The opened rack was then hand-pushed along an elongated table. The pushing element was not automatic, or even mechanical.

The result achieved by this simple method undoubtedly was utilitarian when applied to self-service grocery stores, for merchandise could be pushed along faster and the purchaser better served. But that, to my thinking, does not constitute Turnham's combination of old elements inventive to the degree that a patent monopoly should be granted him.

In *Williams Mfg. Co.* v. *United Shoe Mach. Corporation*, 121 F. (2d) 273 (C. A. 6), [affirmed by the Supreme Court, 316 U. S. 364] in which this dissenter concurred, the heel seat laster used in manufacturing shoes was highly complicated and the improvements held valid required more ingenuity to accomplish than the mere work of a mechanic skilled in the art. I think the same may be said of the patent relating to a clutch used in single-plate clutches for motor vehicles held valid in *Goodwin* v. *Borg-Warner Corporation*, 157 F. (2d) 267 (C. A. 6), in which the present dissenter concurred in the opinion of Judge Allen.

In *Sinclair Co.* v. *Interchemical Corporation*, 325 U. S. 327, 330, the Supreme Court, in holding a patent invalid, said: "A long line of cases had held it to be an essential requirement for the validity of a patent that the subject-[fols. 600-601] matter display 'invention', 'more ingenuity . . . than the work of a mechanic skilled in the art'. [Citing cases.]"

Earlier, in *Cuno Corp.* v. *Automatic Devices Corporation*, 314 U. S. 84, 90, the highest court stated: "We may concede that the functions performed by Mead's combination were new and useful. But that does not necessarily make the device patentable. Under the statute (35 U. S. C., sec. 31; R. S. sec. 4886) the device must not only be 'new and useful', it must also be an 'invention' or 'discovery.' *Thompson* v. *Boisselier*, 114 U. S. 1, 11. Since *Hotchkiss* v. *Greenwood*, 11 How. 248, 267, decided in 1851, it has been recognized that if an improvement is to obtain the privileged position of a patent more ingenuity must be involved than the work of a mechanic skilled in the art. [Citing cases.]" This court has said that not every improvement necessarily denotes invention and "the adoption of a well-known mechanical expedient is within the expected skill of the art." *Shaler Co.* v. *Rite-Way Products*, 107 F. (2d) 82, 83 (C. A. 6).

In the old case of *Atlantic Works* v. *Brady*, 107 U. S. 192, 200, Mr. Justice Bradley declared for the unanimous Supreme Court that to "grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences."

Applying these principles, I am unable to see that invention inheres in the patent claims in suit. Accordingly, I think that the judgment of the district court, being grounded upon clearly erroneous findings, should be reversed.

[fol. 603] ORDER DENYING PETITION FOR REHEARING—Filed February 10, 1950

The opinion in the above case is amended by striking from line 28 on page 4 thereof the words "of appellant's."

The petition for rehearing is denied.

Judge Martin thinks that, for the reasons stated in his dissenting opinion, the petition for rehearing should be granted.

[fol. 604] UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SIXTH CIRCUIT

I, J. W. Menzies, Clerk of the United States Circuit Court of Appeals for the Sixth Circuit, do hereby certify that the foregoing is a true and correct copy of record and proceedings in the case of The Great Atlantic & Pacific Tea Company vs. Supermarket Equipment Corporation, No. 10,835, as the same remains upon the files and records of said United States Circuit Court of Appeals for the Sixth Circuit, and of the whole thereof.

In testimony whereof, I have hereunto subscribed my name, and affixed the seal of said Court, at the City of Cincinnati, Ohio, this 9th day of March, A. D. 1950.

J. W. Menzies, Clerk of the United States Circuit Court of Appeals for the Sixth Circuit. (Seal.)

[fol. 616] SUPREME COURT OF THE UNITED STATES

ORDER ALLOWING CERTIORARI—Filed May 1, 1950

The petition herein for a writ of certiorari to the United States Court of Appeals for the Sixth Circuit is granted. The case is transferred to the summary docket.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.